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ABSTRACT

A series of reports describes the activities of the Office of Research and Evaluation and compiles data descriptive of the Austin (Texas) Independent School District. This report describes the system-wide evaluation data for the school year 1976-77, which demonstrate improved performance in the basic skills areas of reading and mathematics, including reading in other subject areas. The results are presented in detail. Overall, achievement in the basic skills was shown to have improved over the previous year. (Author/CTM)

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FINAL EVALUATION REPORT

1976-77

Systemwide Evaluation

July, 1977

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I

ABSTRACT

SYSTEMWIDE EVALUATION, 1976-77

Description of Program

On May 1, 1977, the AISD Board of Trustees of the Austin Independent School District designated basic skills achievement as one of its major priorities for the 1976-77 school year.

The administration submitted a plan for this priority for Board consideration on November 22, 1976.

Included in the plan were activities to be carried out by the Board, the Superintendent and administration, schools, and departments. In particular, schools were each to develop plans for emphasizing basic skills, and departments were to develop plans for the specific contributions they would make to schools in their emphasis.

The Superintendent and administration were to define basic skills, designate acceptable measures, provide directions to schools and departments on preparing plans, publish a specific guide to each principal and administrative department explaining how plans were to be reviewed and implementation monitored, publish a complete plan as abstracted from those school and department plans, and, finally, monitor the implementation of all plans.

Evaluation Purposes

There were two major purposes of the systemwide evaluation activities. First, the testing data serves as a general assessment of district performance in important academic areas. Second, the evaluation data and analyses serve as a way of evaluating progress that the district has made toward the basic skills achievement outcomes designated by the Board of Trustees as a priority. Third, the information will serve as assessment data for the Board in establishing its priorities for the subsequent 1977-78 school year. Finally, although not presented in this report, individual student data and school data resulting from the Systemwide Evaluation effort were provided to assist schools and teachers in their planning and evaluation efforts.

Resources were not available to the Systemwide Evaluation to monitor the implementation of the basic skills priority. Unfortunately, therefore, it is impossible to say whether there is a relationship between the activities indicated for the program and the results to be reported here. Process evaluation in connection with future priorities would appear to be extremely desirable.

Evaluation Activities

The major evaluation activities were the administration of the following achievement tests:

- Metropolitan Readiness Test (to all first grade students)
- Language Screening Test (to all kindergarten students)
- PAL Oral Language Dominance Test (to all identified limited English-speaking ability (LESA) students in grades K-3 not previously tested with the PAL)
- California Achievement Tests (to all students in grades 1 - 8
- Boehm Test of Basic Concepts (to all kindergarten students)
- Sequential Tests of Educational Progress (to all students in grades 9 - 12).

Other evaluation activities were the designing and performance of all required data analyses and computer reports to schools and for this report; the designing of districtwide and school profiles covering from one to five years of data as available, and activities related to the establishment of priorities for the 1977-78 school year by the Board of Trustees.

Evaluation Findings

Overall, achievement in the basic skills has improved from 1975-76 to 1976-77. Achievement in reading improved this year over last at grades 2, 4, and 5; showed no change at grades 1, 3, 6, and 8; and declined only at grade 7. In mathematics, achievement showed gains in grades 2, 3, 4, and 8; showed no change in grades 1, 5, 6, and 7; and showed no decline at any grade level. At the high school level, there were gains in reading and science at every grade level, 9-12. There were gains in social studies, mechanics of writing, capitalization and punctuation, and mechanics of writing total scores at grades 9, 10, and 12 with no change at grade 11. There were gains in math computation at grades 9, 11, and 12, with no change at grade 10. There were gains at grades 10 and 12 in English expression and in mechanics of writing-spelling with no changes at grades 9 and 11. There were gains in math concepts at grades 11 and 12 and no changes at grades 9 and 10.

Thus, in all subjects measured and at all grade levels, only one score--reading at grade 7--declined. Figure I-1 summarizes the more abundant gains than losses in achievement of AISD students this year over last year's performance.

Achievement in Grades 1-12	Changes from 1975-76 to 1976-77	
	Reading	Math
No. of possible changes	12	16
No. of gains	7	9
No. of no-changes	4	7
No. of losses	1	0

Figure I-1: CHANGES IN READING AND MATH ACHIEVEMENT PERFORMANCE IN AUSTIN I.S.D. FROM 1975-76 TO 1976-77.

Where four-year longitudinal data (reading and math at grades 2, 4, 6, 7, and 8) is available, there is also overall improvement. Of ten possible changes, there were eight gains registered and two losses. Figure I-2 shows the consistent gains in math at these grades over the four-year period.

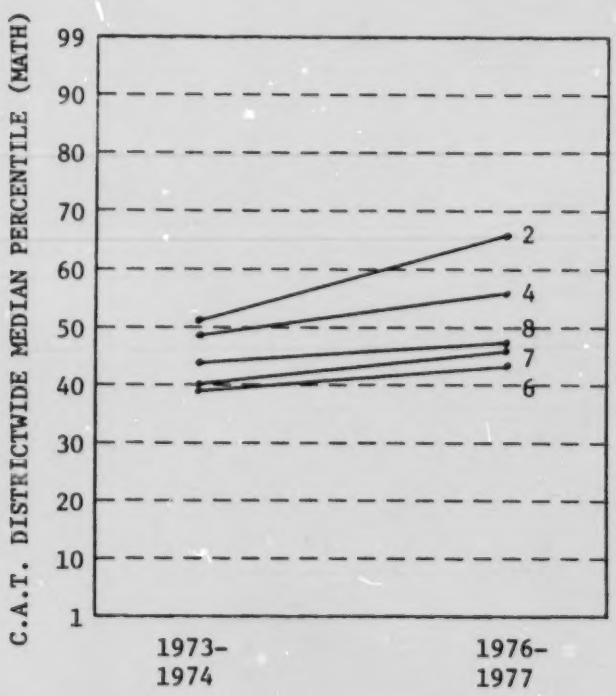

Figure I-2: GAINS IN C.A.T. MATH SCORES OVER FOUR-YEAR PERIOD IN AUSTIN I.S.D.

However, achievement of Austin students still remains below national norms at some grade levels as illustrated for reading and mathematics in Figures I-3 and I-4. It can be noted that the grade level trend is downward from grade 1 to 6 and upward from grade 7 to 12. (See Figures I-3 and I-4 on the next two pages.)

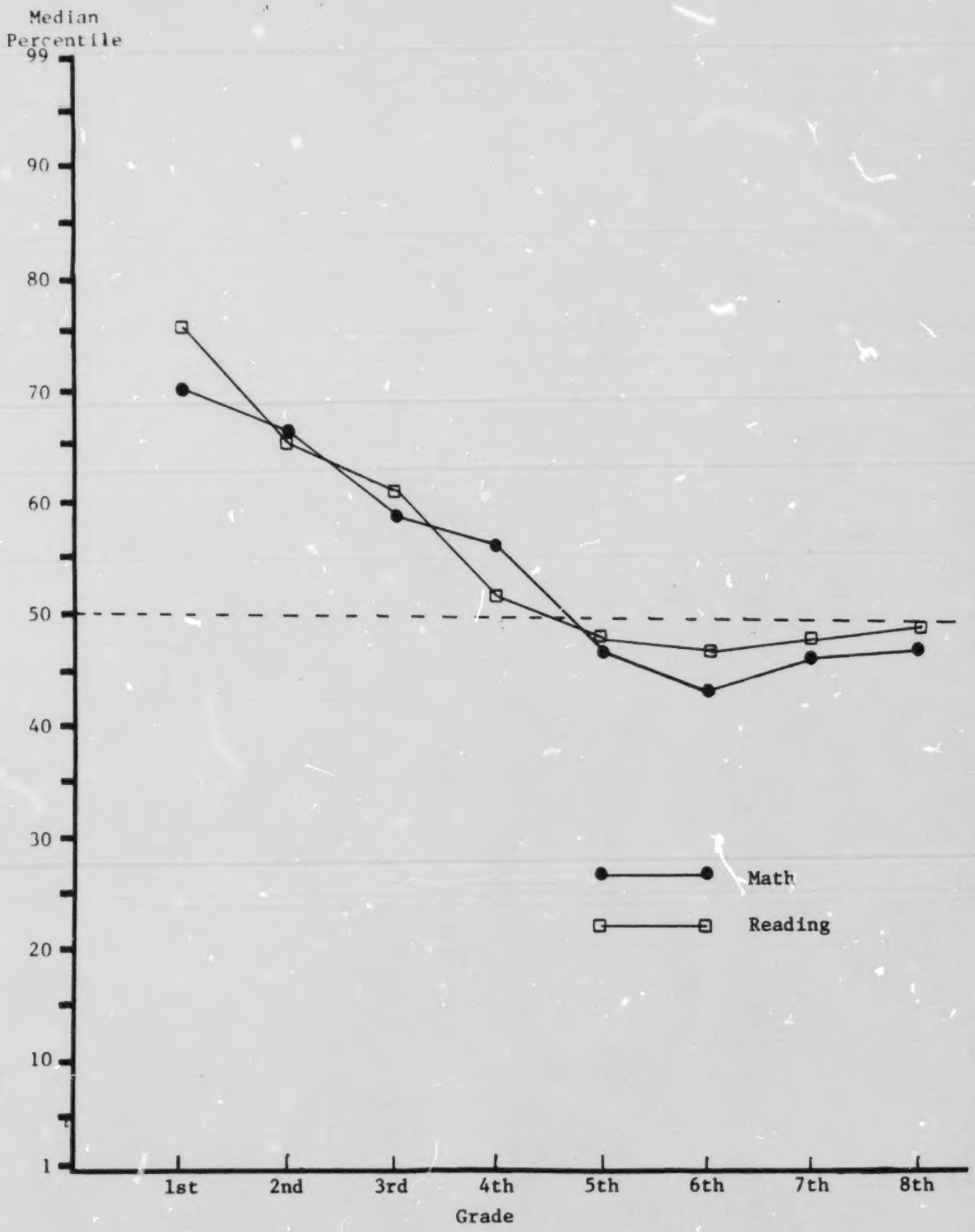

FIGURE I-3: CALIFORNIA ACHIEVEMENT TEST READING AND MATH TOTAL MEDIAN PERCENTILE SCORES, 1976-77

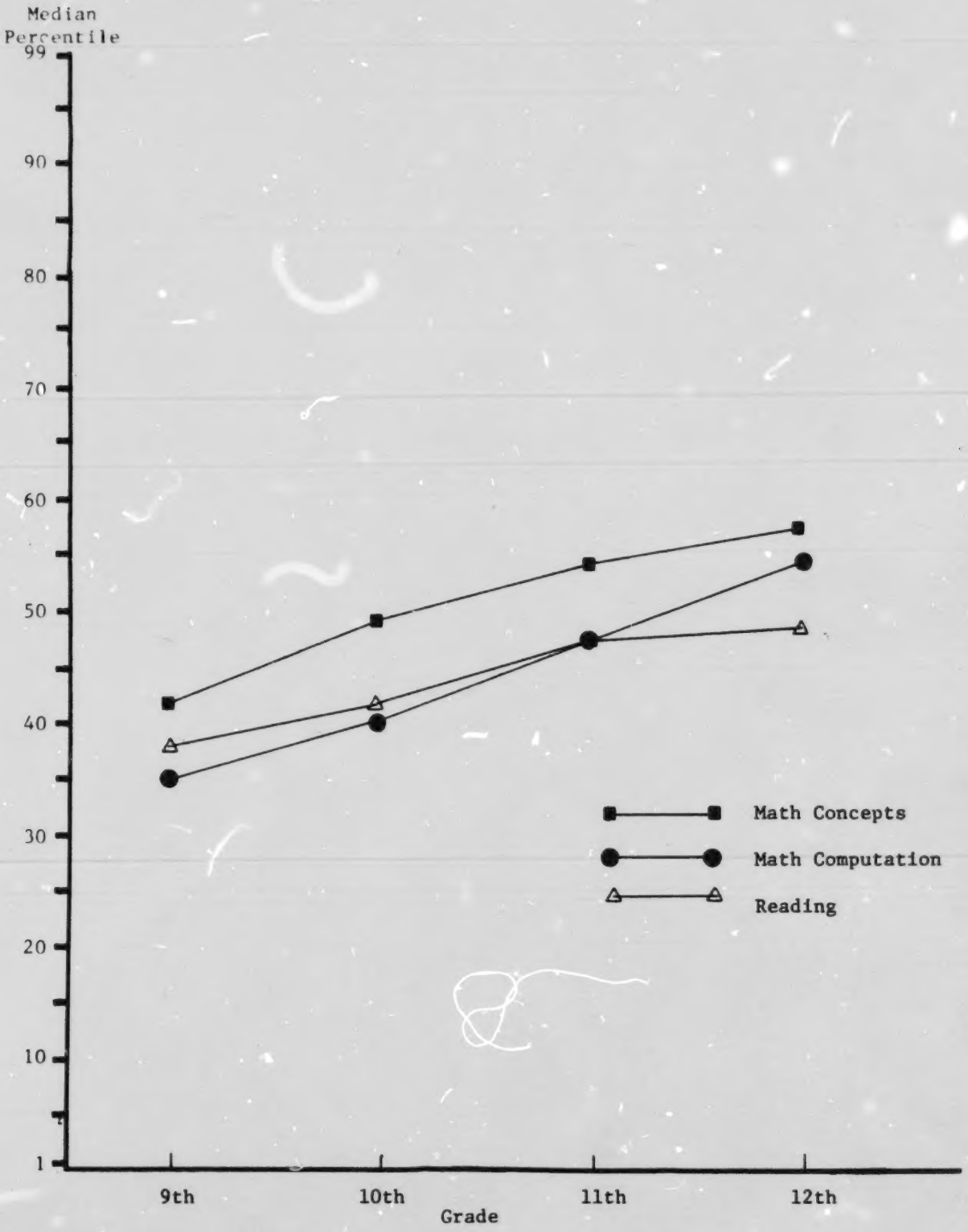

FIGURE I-4: SEQUENTIAL TESTS OF EDUCATIONAL PROGRESS READING, MATH CONCEPTS, AND MATH COMPUTATION MEDIAN PERCENTILE SCORES, 1976-77

II

DECISION QUESTIONS ADDRESSED

A. SYSTEM-LEVEL QUESTIONS

1. What specific components in each of the major curriculum areas (such as addition of fractions in the Mathematics curriculum) require increased instructional emphasis?

RELEVANT FINDINGS:

In grades 1-8, a set of skills have been identified for which no improved achievement over last year has occurred. Of these skills there are a few for which Austin achievement is less than the national norms. There are also a few of these skills for which achievement is poorer than Austin achievement in other skills areas. These skills for which Austin achievement has declined and which are either below national norms or among the lowest in Austin are listed in figure II-1.

The greatest concentration of low achievement is in grades 5-8 for skills involved in math problems (the so-called "word problems", such as interpreting graphs, computing areas, determining discounts, etc,. See Figure II-1.)

In grades 9-12, achievement in only a very small percentage of the skills dropped from last year. However, in almost all instances, achievement was below the national norms. It thus appears that there is little value in singling out only a few skills for the purpose of increased instructional emphasis. At high school level, most skills are still deficient, even though considerable improvement has occurred since last year.

EVALUATION FINDINGS REFERENCED:

Evaluation Questions 1-1, 1-2, and 1-3

Interrelationships

Skills Areas	Grades
Reading Vocabulary:	
Sentence Picture Association	1
Reading Comprehension:	
Reference Skills	8
Generalization	5
Relations	7
Inference	7
Math Computation:	
Addition	2
Addition of Integers and Fractions	6,7
Subtraction of Integers and Fractions	6
Math Problems:	
Subtraction	5,6,7,8
Multiplication	5,7
Division	6,7,8

Figure II-1: LISTING OF CAT SKILLS FOR WHICH ACHIEVEMENT HAS DECLINED SINCE LAST YEAR AND (1) ACHIEVEMENT IS BELOW NATIONAL NORMS, OR (2) ACHIEVEMENT IS LOWEST IN AISD

2. Does the overall basic skills commitment in the district require additional emphasis behond the increased emphasis provided in 1976-77?

RELEVANT FINDINGS:

In Grades 1-4, reading and mathematics achievement continues to be above the national norms, while in Grades 5-8 it continues to be slightly below the national norms.

For math achievement in Grades 5-8, only Grade 8 improved over last year; in Grades 5-7, no improvement in math achievement over 1975-76 occurred. For reading achievement, only Grade 5 improved over last year; in Grades 6 and 8, no change occurred since 1975-76; and reading achievement in Grade 7 dropped.

Reading achievement in Grades 1-4 improved over that of 1975-76 in Grades 2 and 4; no change in achievement occurred in Grades 1 and 3. Math achievement in Grades 1-4 improved over last year in Grades 2-4; math achievement in grade 1 remains the same as in 1975-76.

Achievement in math computation dominates achievement in math concepts and problems in Grades 1-5. This fact should be compared to the observation made in the relevant findings section for Decision Question 1, where it was pointed out that in Grades 5-8, achievement in the "word problems", part of the math concepts and problems area, is quite weak.

In the high school grades, improvement in achievement over last year occurred in almost all instances. In no case was there a decline from last year. However, in nine cases achievement did not improve from last year. These were in Math Concepts (Grades 9 and 10), Math Computation (Grade 10), Mechanics of Writing - Spelling (Grades 9 and 11), Mechanics of Writing - Capitalization and Punctuation (Grade 11), Social Studies (Grade 11), and English Expression (Grades 9 and 11).

Although much improvement in achievement has occurred since last year, in only a few instances was this year's achievement above the national norms, mostly at grade 12 (Social Studies, Science, Math Computation, and Math Concepts) and in one instance at Grade 11 (Math Concepts).

Generally, Austin achievement in the different STEP tests may be ranked as follows, with achievement in the first listed tests being higher than in those tests listed at the bottom:

- Math Concepts
- Science
- Reading
- Math Computation
- Social Studies
- Mechanics of Writing - Spelling
- English Expression
- Mechanics of Writing - Capitalization and Punctuation

EVALUATION FINDINGS REFERENCED:

Evaluation questions 2-1, 2-2, 2-3, and 2-4.

3. What achievement battery(s) should be utilized, beginning in 1977-78, in Grades 1 - 8?

RELEVANT ORE FINDINGS:

No efforts to provide information relevant to this decision question were attempted this year. Early in this year, considerable work by the Texas Education Agency and by a subcommittee of the Texas Legislature was done concerning the development of a statewide accountability procedure which included, among other features, a state-mandated achievement testing program for all students in grades 1 - 12.

Until such issues have been completely resolved, it is inopportune to consider a revised testing program in the district. This is especially true since a considerable amount of staff time and funds would have been involved in conducting this study.

After these critical external constraints have been identified and their impact on the district is known, this decision question may be reconsidered.

4. What kindergarten instructional areas require additional emphasis?

RELEVANT FINDINGS:

In none of the basic categories of concepts (Space, Time, Quantity, and Miscellaneous) that are tested in kindergarten students was understanding this year less than understanding by kindergarten students of last year.

In one category (space concepts), understanding by kindergarten students this year was slightly higher than for last year. Overall, however, there is no appreciable difference between understanding by students of this year and of last year.

The understanding of concepts by Austin students in each category is higher than the understanding of students in a national norming sample. It should be noted, however, that because of weaknesses in the test norming, this norming sample may not be truly representative of kindergarten students across the country.

EVALUATION QUESTIONS REFERENCED:

Evaluation Questions 4-1 and 4-2.

6. What kindergarten readiness test should be utilized, beginning in 1977-78?

RELEVANT FINDINGS:

Three kindergarten readiness tests were considered for use in 1977-78: the Boehm Test of Basic Concepts (which is currently in use), the Metropolitan Readiness Tests (MRT), and the Tests of Basic Experiences (TOBE).

The three primary criteria that were considered were (1) the technical qualities of the test, such as reliability and the adequacy of the norming of the test, (2) the relevance of the test content to the kindergarten curriculum and to the instructional uses that would be made of the test, and (3) the costs of the test.

None of the three tests satisfied all of these criteria. The MRT was the most technically sound and was relatively inexpensive. However, the MRT was not considered by the primary level instructional coordinators to be compatible with the kindergarten curriculum.

The TOBE was considered by the instructional coordinators to be the most compatible with the kindergarten curriculum, but the norming of the test was inadequate. Also, the TOBE was about twice as expensive as either of the other two tests.

The Boehm was considered by the instructional coordinators to be an acceptable test for compatibility with the kindergarten curriculum, and it is the least expensive of the three tests. The norming of the Boehm is inadequate, however.

EVALUATION FINDINGS REFERENCED:

Evaluation Questions 6-1 and 6-2.

7. What priorities should be established for the district in the 1977-78 year?

RELEVANT FINDINGS:

On April 27, 1977 the results of administrative staff and Board member interviews and extensive background data on a number of potential priority areas listed below were presented to the Board of Trustees for consideration and the first three of those listed were designated as potential priorities for the 1977-78 school year with the remaining to be considered as areas of continuing emphasis. In the subsequent months, staff and public input is being sought and the final designation of priorities is scheduled for August 1, 1977.

- Continued Concentration on Basic Skills
- Attention to Achievement of Low Socioeconomic Status (SES) and Minority Students
- Emphasis on Evaluation of Staff
- Development of a Comprehensive Accreditation and Accountability Plan
- Quarter System and Curriculum Revision
- Closer Coordination of Elementary and Secondary Curriculum
- Programs for the Gifted and Talented
- Methods of Improving Attendance
- Special Education Needs
- Coordination of Special Projects and Regular Curriculum in the School District.

EVALUATION FINDINGS REFERENCED:

Evaluation question 7-1.

III

PROJECT DESCRIPTION

A. PROGRAM DESCRIPTION

The systemwide evaluation data reported here will serve as the basis for the assessment of one AISD Board of Trustees 1976-77 priority. In the early summer of 1975, the School Board first directed the district to implement a program of special reemphasis on basic skills during 1975-76. Included in this program plan was a stipulation that "the testing program would be designed to provide information on the progress being made in the teaching of basic skills." This final report, therefore, provides this type of information on a district-wide level for the second year of this effort. (School-level data of this nature has been prepared for schools and either has already been distributed or will be delivered to school personnel prior to the beginning of the 1977-78 school year.)

The priority for 1976-77, as approved at the November 22, 1976 meeting of the Board of Trustees, was:

> Students in the Austin Independent School District will demonstrate improved performance in basic skills areas of reading and math including reading in the content areas of language arts, math, social studies, and science during the 1976-77 school year.

The plan submitted by the administration for this priority and also approved at that November meeting included:

	Responsibility	Current Status	Target Dates
The Board of Trustees will:		November 15, 1976	
1. State priority with sufficient clarity that it can serve as a guiding force for staff members in their work for 1976-77	Board of Trustees	Accomplished	May 1, 1976
2. Monitor the plan for basic skills emphasis through three review study sessions held during the 1976-77 school year as follows:			
a. Review and approval of the priority plan will be accomplished and published with copies available for all teachers and administrators	Superintendent	In preparation for distribution	December 1, 1976
b. A study session to review achievement test results for 1975-76 such that members are familiar with the measures, the results, and their implications. Identification of specific targets of basic skills emphasis and any changes in the published plan for 1976-77 will be made and published.			October 1976
			October, 1976
Administrative recommendations will be reviewed by the Board.		November 22, 1976 Board Meeting	November 1976
c. Progress on the 1976-77 priority will be reviewed and considered in setting 1977-78 priorities.			May, 1977

Priority	Responsibility	Current Status 11-15-76	Target Dates
The Superintendent and administration will:			
1. Define basic skills	Superintendent	Accomplished	August 1976
2. State acceptable measures for determining progress	Superintendent	Accomplished (Achievement Tests)	August 1976
3. Provide specific directions to schools and administrative departments on developing plans for addressing the basic skills priority including a format for reporting their plan	Dr. Smoot Dr. Bowden	Accomplished	September 1976
4. Publish a specific guide to each principal and administrative department explaining how the school and department plans will be reviewed and how the monitoring of the implementation of such plans will occur.	Dr. Smoot Dr. Bowden	Accomplished	September 1976
5. Establish a cabinet review process for monitoring the carrying out of school and department plans and for the review and monitoring process for the 1976-77 school year.	Superintendent	Process accomplished	Review, May 1977
6. Publish complete plan for all staff members.	Dr. Smoot Dr. Bowden	Accomplished by memo to principals	December 1976
7. Carry out monitoring schedule.		In process	1976-77
Schools will:			
1. Develop a plan for emphasizing basic skills in 1976-77	Schools	In process	September 1976
2. Implement the approved plan.		In process	1976-77
Departments will:			
1. Develop a plan for specific department contributions to schools in their emphasis on basic skills in 1976-77		In process	September 1976

It should be made perfectly clear here that because of limited resources the systemwide evaluation component of the Office of Research and Evaluation in no way attempted to evaluate how or to what extent the priority on basic skills was actually implemented. It was not possible to document to what extent the activities specified in the above were carried out. This study merely reports on the progress of AISD students in certain academic subject areas as measured by nationally normed standardized tests during the 1976-77 school year. The extent to which this progress is an outcome of the emphasis on basic skills planned for this year (or of any other factors operating this year in the district) can only be hypothesized.

B. CONTEXT DESCRIPTION

The context under which the original "reemphasis on basic skills" occurred was described in detail in the 1975-76 Final Evaluation Report: Systemwide Evaluation (ORE Publication 76.56). During the current year the level of expressed public concern over basic skills has diminished, probably somewhat ameliorated by the rise in achievement scores reported in 1975-76. However, it remains a conscious force in the background in Austin. This is evidenced by continued attention in the local media to national expressions of the problems of achievement in basic skills.

C. EVALUATION DESCRIPTION

The systemwide evaluation is entirely an outcome evaluation effort. However, this evaluation is supplemented by the High School Curriculum Evaluation[1] and by the Low S-E-S and Minority Achievement Study[2] both of which contain some process data on the elementary and secondary education program.

Those decision questions agreed upon as points of focus for 1976-77 include the following:

1. What specific components in each of the major curriculum areas (such as addition of fractions in the Mathematics curriculum) require increased instructional emphasis?

2. Does the overall basic skills commitment in the district require additional emphasis beyond the increased emphasis provided in 1976-77?

4. What kindergarten instructional areas require additional emphasis?

5. Should future selection of kindergarten oral language systems be restricted to only one of two systems currently in use (Lippincott or MacMillan)?

6. What kindergarten readiness test should be utilized, beginning in 1977-78?

7. What priorities should be established for the district in the 1977-78 year?

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[1]Stan Drezek, et al. 1976-77 High School Curriculum Evaluation: 1976-77, Austin, Texas: Austin Independent School District, Office of Research and Evaluation.

[2]Paula Matuszek, et al. 1976-77 Low SES & Minority Achievement Study Status Report: 1976-77, Austin, Texas: Austin Independent School District, Office of Research and Evaluation.

The answers to these questions are found in Chapter II of this report. O.R.E. also provides the following services to the schools as a part of the systemwide evaluation effort:

1. Manages the administration and scoring of all group achievement, intelligence, and readiness tests that are utilized by the district.

2. Provides summarizing reports on test data to central office and school administrators and to teachers. One type of report consists only of summary data. No recommendations regarding decisions are provided. The other type of report provides both summary test data and recommendations regarding decision questions.

3. Provides inservice to district personnel in the correct administration of tests and in the interpretation of test results.

4. Supervises the maintenance of a longitudinal data base of student test data and other associated student information.

Below is the schedule of all tests for which the Systemwide evaluation component was responsible:

Test	Schools and Grades	Administration Date
Metropolitan Readiness Test	All first grade students.	Aug. 30 - Sept. 3, 1976
Language Screening Test	All kindergarten students.	Aug. 30 - Sept. 10, 1976
PAL Oral Language Dominance Test	All identified Limited English-Speaking Ability (LESA) students in grades K-3 who were not previously tested with PAL.	Sept. 13 - Sept. 30, 1976
California Achievement Test	All students in grades 7-8.	Feb. 14 - Feb. 18, 1977
Boehm Test of Basic Concepts	All kindergarten students.	Feb. 21 - Feb. 25, 1977
California Achievement Tests	All students in grades 1-6.	Mar. 28 - Apr. 1, 1977

Sequential Tests of Educational Development	All students in grades 9-12 of selected high schools.	Apr. 13 - April 14, 1977
Sequential Tests of Educational Development	All students in grades 9-12 of high schools not tested during April 13 - April 14	Apr. 20 - Apr. 21, 1977

IV

EVALUATION FINDINGS

A. EVALUATION QUESTIONS

1-1. How does student achievement in each basic skills areas compare with student achievement last year in these basic skills areas?

ANSWER: For the most part achievement in the different skills area was higher this year than it was last year. Only in a small proportion of the skills did achievement drop, for one or more grades. In a slightly larger proportion of the skills, there was no change from last year for one or more grades.

SUPPORTIVE DATA:

To answer this question the average percent of items answered correctly for each skills area, for 1975-76 and 1976-77 was computed. The difference between these two average percents provides an indication of how districtwide achievement has changed from last year.

Figure IV-1 illustrates that for each grade, there are usually a relatively small percentage of skills areas for which achievement has remained unchanged or has dropped since 1975-76. Figure IV-2 details the specific CAT skills for which achievement has dropped or remained the same. Figure IV-3 details the specific STEP skills for which achievement has dropped or remained the same. Part 1 of Appendix A and Part 1 of Appendix B of the Systemwide Evaluation Final Technical Report provide more details on the analysis methods and on the findings that are related to this question.

GRADE	Number of Skills Areas	PERCENTAGE OF SKILLS AREAS		
		Dropped from 1975-76	Equal to 1975-76	Increased Norms from 1975-76
1	14	21%	57%	21%
2	11	0%	9%	91%
3	11	0%	9%	91%
4	18	0%	11%	89%
5	18	0%	18%	72%
6	13	23%	54%	23%
7	13	23%	54%	23%
8	13	23%	23%	54%
9	43	9%	28%	63%
10	43	11%	26%	63%
11	43	7%	16%	77%
12	43	2%	12%	86%

Figure IV-1: PERCENTAGE OF SKILLS WHICH HAVE DROPPED, NOT CHANGED, OR INCREASED SINCE 1975-76

CAT Test	SKILLS AREA	GRADES	Change in Average Percent Correct from 1975-76 to 1976-77	
			No Change	Average Drop
Reading Vocabulary	Sentence Picture Association	1	X	
	Beginning Sounds	1	X	
	Ending Sounds	1	X	
	Letter Recognition	1	X	
	Picture-Word Association	1	X	
	Word Recognition	1	X	
	Words in Context	1	X	
	Word Form	1		-1.0
Reading Comprehension	Alphabetizing	3	X	
	Reference Skills	5, 6, 7	X	
	Reference Skills	8		-1.0
	Facts	5, 6, 7	X	
	Generalization	5 , 6, 7, 8	X	
	Interpretation	6, 8	X	
	Interpretation	7		-1.0
	Relations	7 , 8	X	
	Relations	6		-1.0
	Inference	7	X	
Math Computation	Addition - Vertical Format	1	X	
	Addition	2	X	
	Addition of Fractions	4	X	
	Addition of Integers and Fractions	6 , 7	X	
	Subtraction of Integers and Fractions	6	X	
	Multiplication of Fractions	4	X	
Math Problems	Problems	1		-1.0
	Subtraction	5	X	
	Subtraction	6 , 7 , 8		-4.6
	Multiplication	5 , 6 , 7	X	
	Division	6 , 7 , 8		-1.3

Figure IV-2: LISTING OF CAT SKILLS AREAS WHICH HAVE DROPPED OR NOT CHANGED IN ACHIEVEMENT SINCE 1975-76

STEP Test	SKILLS AREA	GRADES	Change in Average Percent Correct from 1975-76 to 1976-77	
			No Change	Average Drop
Reading	Vocabulary	9,12	X	
	Drawing Concl. & Making Infer.	9	X	
	Character Analysis	10	X	
	Comprehension of Tone & Mood	10		-1.0
	Comprehension of Details	11	X	
English Expression	Agreement and Case	9,10,12	X	
	Agreement and Case	11		-1.0
	Verb Forms	9,12	X	
	Modifier Placement	9		-2.0
	Modifier Placement	11	X	
	Clauses and Phrases	9		-1.0
	Comparisons	12	X	
Mechanics of Writing	Spelling	9	X	
	Capitalization	9,12	X	
Social Studies	Interpretation of:			
	Sociology & Anthropology	9	X	
	History	9,11		-1.5
	Political Science	10	X	
	Geography	10	X	
	Economics	11	X	
	Evaluation of:			
	Economics	11	X	
	Economics	10		-1.0
	Geography	11	X	
	History	10	X	
	Organization of Information	11		-1.0
Science	Comprehension	9	X	
	Physics	9,10	X	
	Higher Level Skills	10,11	X	
	Knowledge	11	X	
Math	Elementary Algebraic Manips.	9	X	
	Elementary Algebraic Manips.	10		-1.0
	Recall of Facts	9		-1.0
	Comprehension of Math Concepts	9,10	X	
	Exercising Ingenuity	9,10	X	
	Computation of Whole Numbers	10	X	
	Computation with Fractions	10		-1.0
	Computation with Decimals and Percents	10	X	
	Computation with Denominate Nos.	10		-1.0
	Computation with Denominate Nos.	12		-2.0

Figure IV-3: LISTING OF STEP SKILLS AREAS WHICH HAVE DROPPED OR NOT CHANGED IN ACHIEVEMENT SINCE 1975-76

1-2. In which basic skills areas is student achievement the lowest? In which is it the highest?

ANSWER: The answer to this question is provided in tabular form in figures IV-4 and IV-5. Figure IV-4 lists for each grade the CAT reading skills areas which have the highest and the lowest achievement. Figure IV-5 lists the high and low math skills for each grades.

Similar answers for the STEP skills areas are not provided. Since achievement in almost all of the STEP skills areas is below the national norms, the distinguishing between the skills with highest achievement and the skills with lowest achievement is not a fruitful activity.

SUPPORTIVE DATA:

To answer this question, the districtwide 1976-77 average percent correct for all of the skills area for a particular test and grade were computed (as discussed in the supportive data in evaluation question 1-1) and were ranked from highest to lowest. The highest such average percent correct was identified as the highest achieving skills area. The lowest average percent correct was identified as the lowest achieving skills area. If two or more skills areas were tied for the top ranking, or for the bottom ranking, they were all identified as highest achieving skills or lowest achieving skills. In the Systemwide Evaluation Final Technical Report, Part 2 of Appendix A and Part 2 of Appendix B provide more details on the analysis methods and on the findings.

CAT Test	Grade	Skills Areas	
		Highest Ranked Achievement	Lowest Ranked Achievement
READING	1	Ending Sounds Word Form Picture-Word Association Word Recognition	Sentence-Picture Association
	2	Comprehension: Alphabetizing	Word Recognition Words in Context Comprehension: Table of Contents & Index
	3	Comprehension: Alphabetizing	Comprehension: Table of Contents & Index
	4	Comprehension: Inference Comprehension: Reference Skills	Comprehension: Facts Comprehension: Relations Comprehension: Generalization
	5	Comprehension: Reference Skills	Comprehension: Relations
	6	Comprehension: Interpretation	Comprehension: Relations Comprehension: Inference
	7	Comprehension: Interpretation	Comprehension: Inference
	8	Comprehension: Generalization	Comprehension: Reference Skills

Figure IV-4: HIGHEST AND LOWEST CAT READING SKILLS AREAS

CAT Tests	Grade	Skills Areas	
		Highest Ranked Achievement	Lowest Ranked Achievement
MATHEMATICS	1	Computation: Subtraction-Horizontal Format	Math Concepts
	2	Computation: Multiplication Computation: Division	Computation: Addition
	3	Computation: Division	Computation: Addition Math Problems
	4	Computation: Subtration of Fractions	Problems: Division
	5	Computation: Addition of Integers Computation: Division of Fractions	Computation: Division of Integers
	6	Computation: Division of Integers and Fractions Problems: Multiplication	Computation: Addition of Integers and Fractions
	7	Computation: Division of Integers and Fractions	Computation: Addition of Integers and Fractions
	8	Problems: Multiplication	Problems: Division

Figure IV-5: HIGHEST AND LOWEST CAT MATH SKILLS AREAS

1-3. How does Austin Achievement in the basic skills areas compare with nationwide achievement in these areas?

ANSWER: In grades 1-3, none of the skills areas have achievement below nationwide achievement. In grades 4-8, achievement in many of the skills areas is below the national norms, especially in grades 5-7. In grades 9-12, achivement in almost all of the skills is below the national norms, expecially in grades 9-11.

SUPPORTIVE DATA:

This question was answered by computing, for each skills area for each grade, the average percent of items in that skills area that were answered correctly. The average percent correct for each skills area for the national norming group was also computed for each skills area. The difference between the average percent correct for Austin and for the national norming sample provides an indication of how Austin achievement compares with nationwide achievement.

Figure IV-6 shows the percentage of skills areas in each grade for which Austin achievement is below the national norms. Figure IV-7 details the specific CAT skills, for each grade for which Austin achievement is below the national norms. Figure IV-8 details the specific STEP skills for each grade for which Austin achievement is below the national norm.

GRADE	Number of Skills Areas	Percentage of Skills Areas Below National Norms
1	14	0%
2	11	0%
3	11	0%
4	18	17%
5	18	61%
6	13	54%
7	13	77%
8	13	31%
9	43	100%
10	43	86%
11	43	72%
12	43	53%

Figure IV-6: PERCENTAGE OF SKILLS AREAS BELOW NATIONAL NORMS

CAT Test	Skills Area	Grades	Average[1] Difference Between AISD and National Norm
Reading Comprehension	Relations	5,6,7	-1.3
	Generalization	5	-1.0
	Inference	6,7	-2.0
Math Computation	Addition of Fractions	5	-2.0
	Addition of Integers & Fractions	6,7,8	-3.6
	Subtraction of Integers	4	-1.0
	Subtraction of Fractions	5	-2.0
	Subtraction of Integers and Fractions	6.7	-1.5
	Multiplication of Integers	5	-3.0
	Multiplication of Fractions	5	-3.0
	Multiplication of Integers and Fractions	6,7	-1.0
	Division of Integers	5	-4.0
Math Problems	Addition	5	-1.0
	Subtraction	4,5,6,7,8	-1.8
	Multiplication	4,5,7	-2.3
	Division	5,6,7,8	-2.5

[1]Computed as AISD "Average Percent Correct" - National Norms "Average Percent Correct"

Figure IV-7: LISTING OF CAT SKILLS AREAS WHICH ARE BELOW NATIONAL NORMS

STEP Test	Skills Area	Grades	Average Difference[1] Between AISD and National Norms
Reading	Vocabulary	9,10,11,12	-4.8
	Comprehension of Main Idea	9,10	-1.5
	Comprehension of Details	9,10,11	-4.0
	Character Analyses	9,10,11,12	-4.8
	Drawing Conclusions and Making Inferences	9,10,11	-1.6
	Comprehension of Tone and Mood	9,10,11,12	-4.8
English Expression	Usage:		
	Agreement and Case	9,10,11	-5.0
	Comparison	9,10	-6.0
	General Usage	9,10,11,12	-5.3
	Verb Forms	9,10	-9.0
	Sentence Structure:		
	Modifier Placement	9	-3.0
	Clauses and Phrases	9,10,11,12	-4.0
	Parallelism	9,10,11,12	-5.0
Mechanics of Writing	Spelling	9,10,11,12	-6.2
	Punctuation	9,10,11,12	-7.7
	Capitalization	9,10,11,12	-9.0
Social Studies	Organizing Information	9,10,11,12	-4.8
	Interpreting Information:		
	Political Science	9,10,11	-4.0
	Sociology & Anthropology	9	-4.0
	Economics	9,10,11,12	-4.3
	History	9,10,11,12	-2.5
	Geography	9,10,11,12	-7.5
	Evaluation:		
	Political Science	9,10,11,12	-1.5
	Sociology & Anthropology	9,10,11	-3.3
	Economics	9,10,11,12	-2.8
	History	9,10,11,12	-4.0
	Geography	9,10,11,12	-3.5
Science	Skills:		
	Knowledge	9,10,11,12	-3.8
	Comprehension	9,10	-1.5
	Application	9,10	-1.5
	Higher Level Skills	9,10,11	-1.3
	Content:		
	Biology	9,10,11,12	-7.0
	Chemistry	9,10,11,12	-4.0
	Physics	9,10,11	-2.6
	Earth Sciences	9,10	-4.6
Math	Computation:		
	Whole Numbers	9,10	-3.0
	Fractions	9,10,11,12	-7.5
	Decimals and Percents	9,10,11,12	-5.3
	Denominate Numbers	9,10,11,12	-4.3
	Elemen. Algebraic Manips.	9	-5.0
	Concepts:		
	Recall Facts	9	-3.0
	Comprehension of Math Cncpts.	9	-2.0
	Exercise Ingenuity	9	-1.0

[1]Computed as the difference between the AISD average percent correct and the National norms average percent correct.

Figure IV-8: LISTING OF STEP SKILLS AREAS WHICH ARE BELOW THE NATIONAL NORMS

2-1. How does student achievement in the general curriculum areas (reading, mathematics, English, etc.) compare with student achievement in these curriculum areas during the last year and during other previous years?

ANSWER: Elementary and Jr. High Schools (using the CAT.) Achievement in reading and in math continues to be higher than that in 1973-74 (the baseline year) except for grades 6 and 8. After 1973-74, Reading achievement for these two grades has never been as high as it was during 1973-74. Additional achievement gains have been made over last year in some grades. Reading achievement has increased over last year in Grades 2, 4, and 5. Math achievement has increased over last year in Grades 2, 3, 4, and 8. At Grade 7, reading achievement has dropped from last year's achievement level; however, seventh grade reading achievement is still higher than it was in 1973-74.

High Schools (using the STEP). There were no instances of decline in achievement since last year. However there were eight instances of a lack on any improvement.. These instances were:

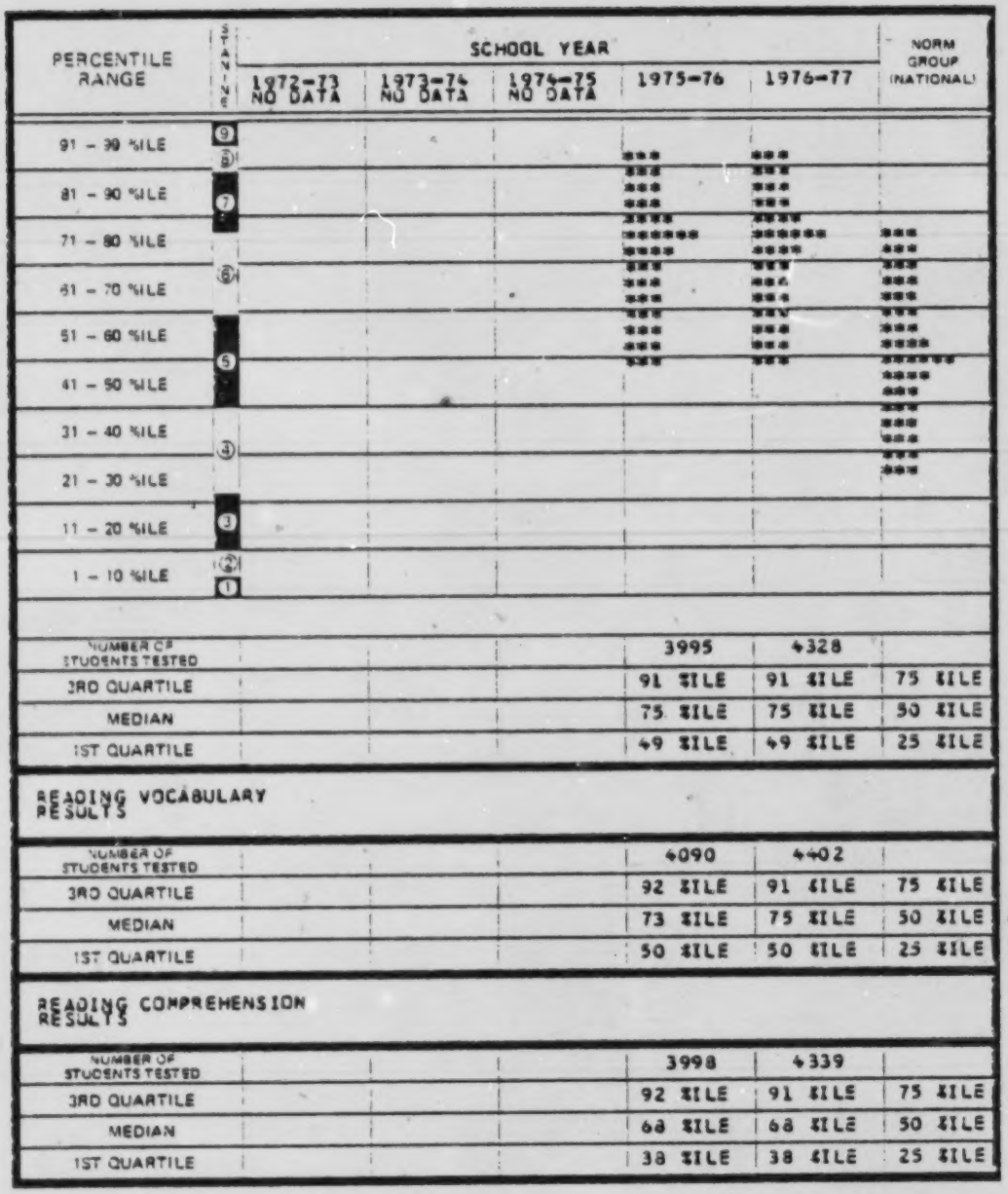
English Expression (at Grades 9 and 11)
Social Studies (at Grade 11)
Mechanics of Writing - Spelling (at Grades 9 and 11)
Mechanics of Writing - Capitalization and Punctuation (at Grade 11)
Math Computation (at Grade 10)
Math Concepts (at Grades 9 and 10)

SUPPORTIVE DATA:

Elementary and Junior High Schools (using the CAT). The districtwide median percentile scores for 1976-77 and for each previous year for which there was acceptable data were examined. These detailed results are displayed in Figures IV-9 through IV-24. A brief summary of the data is provided in Figures IV-25 and IV-26. Graphic displays are presented in Figures IV-27 through IV-30.

1973-74 was used as the baseline year since during the previous year a different level of the CAT was administered to two of the elementary grades. This makes it impossible to make any clear comparisons between the 1972-73 results and those of later years.

Senior High Schools (using the STEP). The districtwide median percentile scores for 1976-77 and for the previous year were examined. (Grades 10-12 were not tested prior to 1975-76; Grade 9 was tested but with a different test.) These median percentile scores provide the basis for the answer given above. The detailed results are displayed in Figures IV-31 through IV-58. A brief summary of the data is provided in Figures III-59 through IV-67. Graphic displays are presented in Figures IV-68 through IV-71.



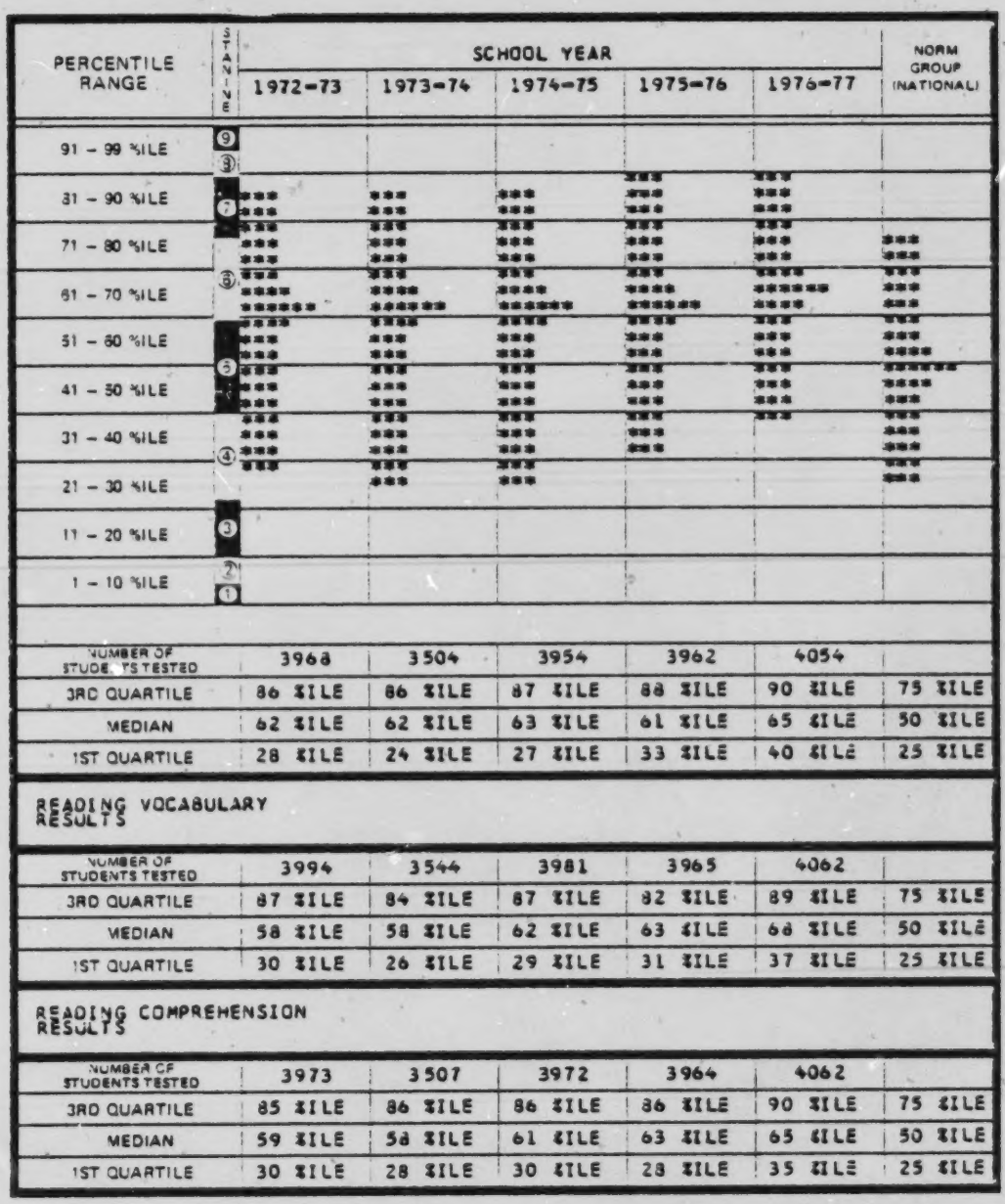
For the CAT Total Tests, the 3rd quartile and the 1st quartile points are graphically indicated by the upper and lower parts of the bar graph. The median point is indicated by the "arrow". The exact 3rd quartile, median, and 1st quartile points, as well as the number of students tested, are printed below the graph. This same information is printed for each of the two subtests, but no graphic display is provided for the subtest results.

Figure IV-9: ACHIEVEMENT PROFILES GRADE 1, AISD - READING TOTAL RESULTS

PERCENTILE RANGE	STANINE	SCHOOL YEAR 1972–73 NO DATA	1973–74 NO DATA	1974–75 NO DATA	1975–76	1976–77	NORM GROUP (NATIONAL)
91 – 99 %ILE	9						
	8						
81 – 90 %ILE	7						
71 – 80 %ILE							
61 – 70 %ILE	6						
51 – 60 %ILE	5						
41 – 50 %ILE							
31 – 40 %ILE	4						
21 – 30 %ILE							
11 – 20 %ILE	3						
1 – 10 %ILE	2						
	1						
NUMBER OF STUDENTS TESTED					4046	4371	
3RD QUARTILE					88 %ILE	88 %ILE	75 %ILE
MEDIAN					70 %ILE	70 %ILE	50 %ILE
1ST QUARTILE					47 %ILE	45 %ILE	25 %ILE
MATH COMPUTATION RESULTS							
NUMBER OF STUDENTS TESTED					4076	4384	
3RD QUARTILE					85 %ILE	85 %ILE	75 %ILE
MEDIAN					71 %ILE	71 %ILE	50 %ILE
1ST QUARTILE					48 %ILE	48 %ILE	25 %ILE
MATH CONCEPTS & PROBLEMS RESULTS							
NUMBER OF STUDENTS TESTED					4054	4381	
3RD QUARTILE					89 %ILE	89 %ILE	75 %ILE
MEDIAN					70 %ILE	67 %ILE	50 %ILE
1ST QUARTILE					43 %ILE	39 %ILE	25 %ILE

For the CAT Total Tests, the 3rd quartile and the 1st quartile points are graphically indicated by the upper and lower parts of the bar graph. The median point is indicated by the "arrow". The exact 3rd quartile, median, and 1st quartile points, as well as the number of students tested, are printed below the graph. This same information is printed for each of the two subtests, but no graphic display is provided for the subtest results.

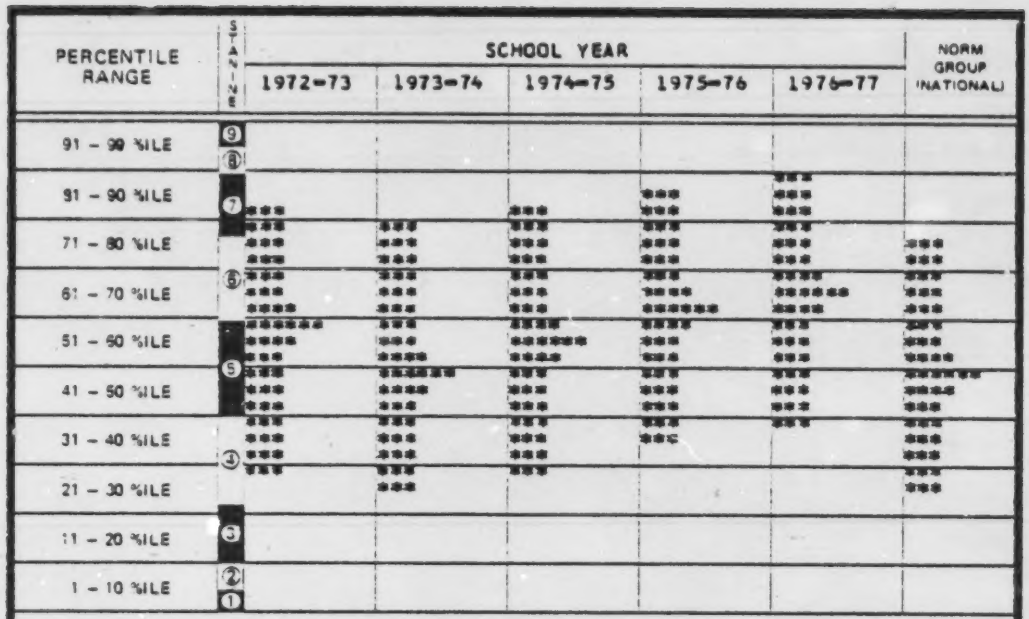
Figure IV-10: ACHIEVEMENT PROFILES GRADE 1, AISD - MATH TOTAL RESULTS



PERCENTILE RANGE	STANINE	SCHOOL YEAR 1972-73	1973-74	1974-75	1975-76	1976-77	NORM GROUP (NATIONAL)
91 – 99 %ILE	9						
	8						
81 – 90 %ILE	7						
71 – 80 %ILE	6						
61 – 70 %ILE	5						
51 – 60 %ILE	4						
41 – 50 %ILE							
31 – 40 %ILE							
21 – 30 %ILE	3						
11 – 20 %ILE	2						
1 – 10 %ILE	1						
NUMBER OF STUDENTS TESTED		3968	3504	3954	3962	4054	
3RD QUARTILE		86 %ILE	86 %ILE	87 %ILE	88 %ILE	90 %ILE	75 %ILE
MEDIAN		62 %ILE	62 %ILE	63 %ILE	61 %ILE	65 %ILE	50 %ILE
1ST QUARTILE		28 %ILE	24 %ILE	27 %ILE	33 %ILE	40 %ILE	25 %ILE
READING VOCABULARY RESULTS							
NUMBER OF STUDENTS TESTED		3994	3544	3981	3965	4062	
3RD QUARTILE		87 %ILE	84 %ILE	87 %ILE	82 %ILE	89 %ILE	75 %ILE
MEDIAN		58 %ILE	58 %ILE	62 %ILE	63 %ILE	68 %ILE	50 %ILE
1ST QUARTILE		30 %ILE	26 %ILE	29 %ILE	31 %ILE	37 %ILE	25 %ILE
READING COMPREHENSION RESULTS							
NUMBER OF STUDENTS TESTED		3973	3507	3972	3964	4062	
3RD QUARTILE		85 %ILE	86 %ILE	86 %ILE	86 %ILE	90 %ILE	75 %ILE
MEDIAN		59 %ILE	58 %ILE	61 %ILE	63 %ILE	65 %ILE	50 %ILE
1ST QUARTILE		30 %ILE	28 %ILE	30 %ILE	28 %ILE	35 %ILE	25 %ILE

For the CAT Total Tests, the 3rd quartile and the 1st quartile points are graphically indicated by the upper and lower parts of the bar graph. The median point is indicated by the "arrow". The exact 3rd quartile, median, and 1st quartile points, as well as the number of students tested, are printed below the graph. This same information is printed for each of the two subtests, but no graphic display is provided for the subtest results.

Figure IV-11: ACHIEVEMENT PROFILES GRADE 2, AISD - READING TOTAL RESULTS



	1972-73	1973-74	1974-75	1975-76	1976-77	NORM GROUP (NATIONAL)
NUMBER OF STUDENTS TESTED	3977	3561	3947	3942	4050	
3RD QUARTILE	83 %ILE	79 %ILE	81 %ILE	86 %ILE	88 %ILE	75 %ILE
MEDIAN	58 %ILE	50 %ILE	54 %ILE	62 %ILE	66 %ILE	50 %ILE
1ST QUARTILE	30 %ILE	24 %ILE	28 %ILE	34 %ILE	38 %ILE	25 %ILE

MATH COMPUTATION RESULTS

NUMBER OF STUDENTS TESTED	3983	3568	3969	3954	4067	
3RD QUARTILE	81 %ILE	77 %ILE	79 %ILE	88 %ILE	89 %ILE	75 %ILE
MEDIAN	55 %ILE	52 %ILE	54 %ILE	60 %ILE	67 %ILE	50 %ILE
1ST QUARTILE	32 %ILE	27 %ILE	29 %ILE	38 %ILE	38 %ILE	25 %ILE

MATH CONCEPTS & PROBLEMS RESULTS

NUMBER OF STUDENTS TESTED	3987	3571	3952	3953	4051	
3RD QUARTILE	82 %ILE	79 %ILE	79 %ILE	79 %ILE	83 %ILE	75 %ILE
MEDIAN	57 %ILE	50 %ILE	52 %ILE	55 %ILE	60 %ILE	50 %ILE
1ST QUARTILE	28 %ILE	21 %ILE	24 %ILE	28 %ILE	31 %ILE	25 %ILE

For the CAT Total Tests, the 3rd quartile and the 1st quartile points are graphically indicated by the upper and lower parts of the bar graph. The median point is indicated by the "arrow". The exact 3rd quartile, median, and 1st quartile points, as well as the number of students tested, are printed below the graph. This same information is printed for each of the two subtests, but no graphic display is provided for the subtest results.

Figure IV-12: ACHIEVEMENT PROFILES GRADE 2, AISD - MATH TOTAL RESULTS

PERCENTILE RANGE	STANINE	SCHOOL YEAR					NORM GROUP (NATIONAL)
		1972–73 NO DATA	1973–74 NO DATA	1974–75 NO DATA	1975–76	1976–77	
91 – 99 %ILE	9						
81 – 90 %ILE	8						
71 – 80 %ILE	7						
61 – 70 %ILE	6						
51 – 60 %ILE	5						
41 – 50 %ILE	5						
31 – 40 %ILE	4						
21 – 30 %ILE	4						
11 – 20 %ILE	3						
1 – 10 %ILE	2						
	1						
NUMBER OF STUDENTS TESTED					3858	3797	
3RD QUARTILE					86 %ILE	86 %ILE	75 %ILE
MEDIAN					61 %ILE	61 %ILE	50 %ILE
1ST QUARTILE					30 %ILE	32 %ILE	25 %ILE
READING VOCABULARY RESULTS							
NUMBER OF STUDENTS TESTED					3860	3799	
3RD QUARTILE					81 %ILE	81 %ILE	75 %ILE
MEDIAN					56 %ILE	56 %ILE	50 %ILE
1ST QUARTILE					30 %ILE	33 %ILE	25 %ILE
READING COMPREHENSION RESULTS							
NUMBER OF STUDENTS TESTED					3859	3799	
3RD QUARTILE					85 %ILE	85 %ILE	75 %ILE
MEDIAN					60 %ILE	60 %ILE	50 %ILE
1ST QUARTILE					29 %ILE	32 %ILE	25 %ILE

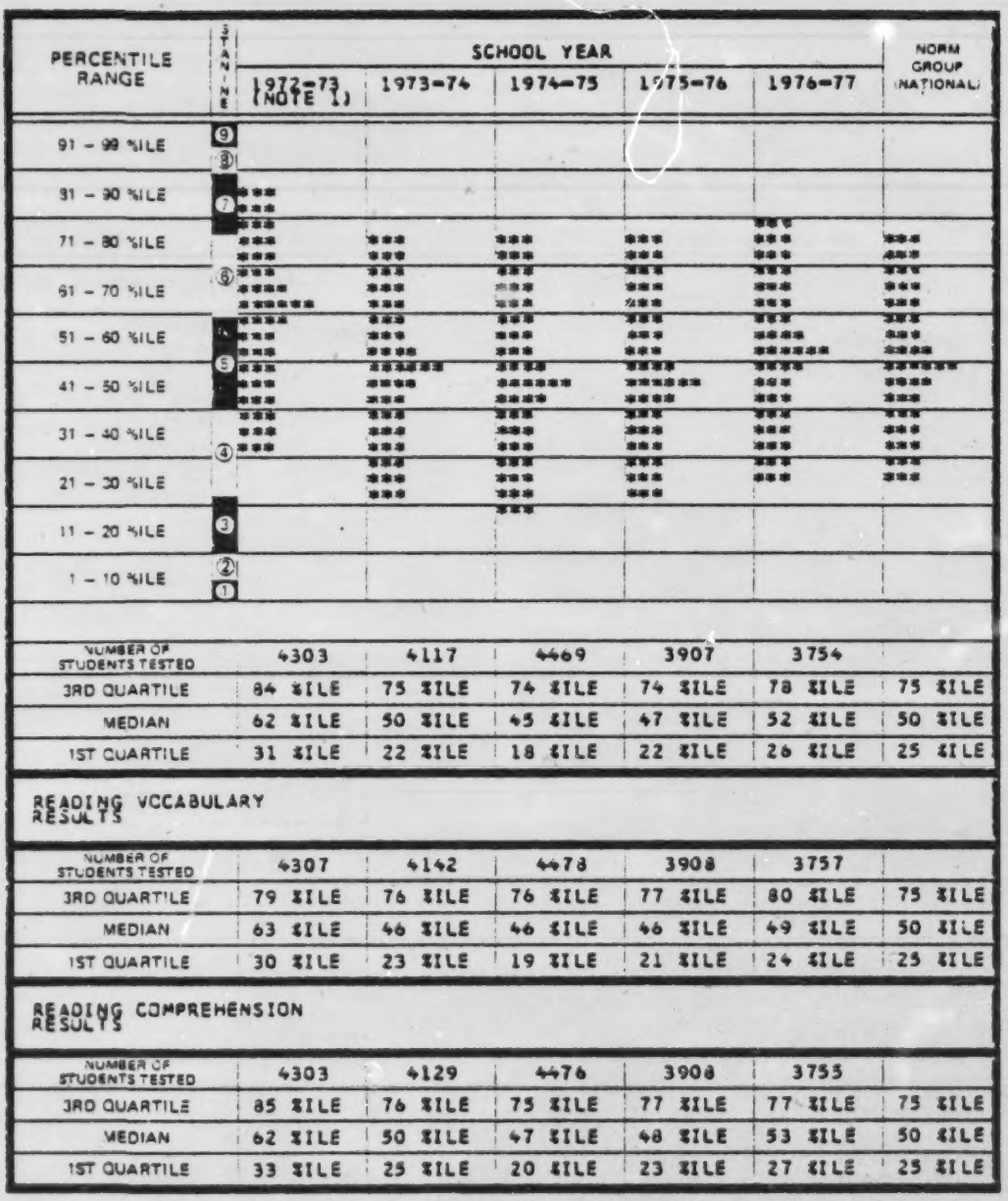
For the CAT Total Tests, the 3rd quartile and the 1st quartile points are graphically indicated by the upper and lower parts of the bar graph. The median point is indicated by the "arrow". The exact 3rd quartile, median, and 1st quartile points, as well as the number of students tested, are printed below the graph. This same information is printed for each of the two subtests, but no graphic display is provided for the subtest results.

Figure IV-13: ACHIEVEMENT PROFILES GRADE 3, AISD - READING TOTAL RESULTS

PERCENTILE RANGE	STANINE	SCHOOL YEAR					NORM GROUP (NATIONAL)
		1972-73 NO DATA	1973-74 NO DATA	1974-75 NO DATA	1975-76	1976-77	
91 - 99 %ILE	9						
	8						
81 - 90 %ILE	7						
71 - 80 %ILE							
61 - 70 %ILE	6						
51 - 60 %ILE							
41 - 50 %ILE	5						
31 - 40 %ILE	4						
21 - 30 %ILE							
11 - 20 %ILE	3						
1 - 10 %ILE	2						
	1						
NUMBER OF STUDENTS TESTED					3861	3794	
3RD QUARTILE					84 %ILE	84 %ILE	75 %ILE
MEDIAN					56 %ILE	59 %ILE	50 %ILE
1ST QUARTILE					30 %ILE	34 %ILE	25 %ILE
MATH COMPUTATION RESULTS							
NUMBER OF STUDENTS TESTED					3863	3798	
3RD QUARTILE					86 %ILE	92 %ILE	75 %ILE
MEDIAN					62 %ILE	67 %ILE	50 %ILE
1ST QUARTILE					33 %ILE	34 %ILE	25 %ILE
MATH CONCEPTS & PROBLEMS RESULTS							
NUMBER OF STUDENTS TESTED					3861	3796	
3RD QUARTILE					76 %ILE	76 %ILE	75 %ILE
MEDIAN					53 %ILE	53 %ILE	50 %ILE
1ST QUARTILE					25 %ILE	25 %ILE	25 %ILE

For the CAT Total Tests, the 3rd quartile and the 1st quartile points are graphically indicated by the upper and lower parts of the bar graph. The median point is indicated by the "arrow". The exact 3rd quartile, median, and 1st quartile points, as well as the number of students tested, are printed below the graph. This same information is printed for each of the two subtests, but no graphic display is provided for the subtest results.

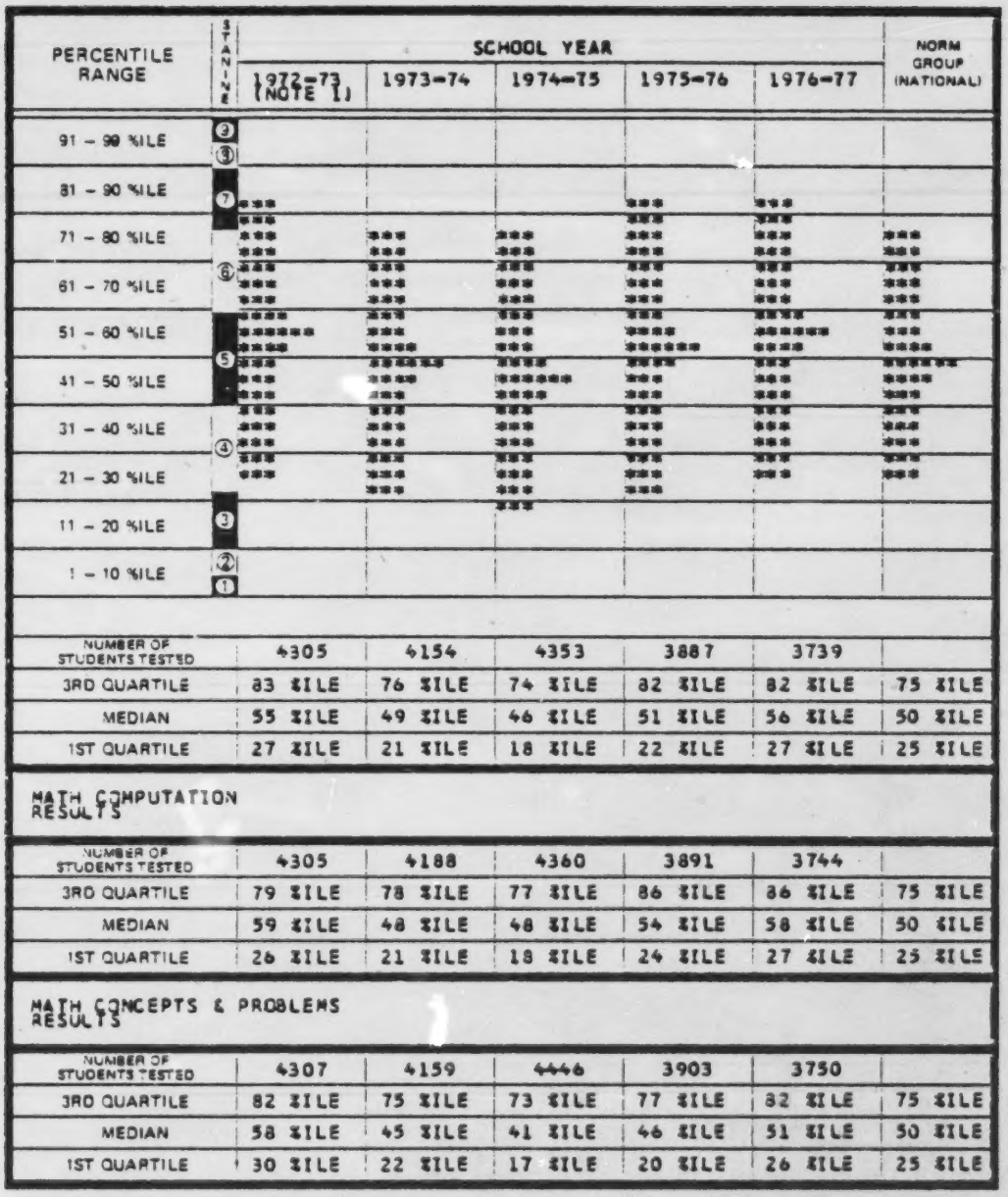
Figure IV-14: ACHIEVEMENT PROFILES GRADE 3, AISD - MATH TOTAL RESULTS


PERCENTILE RANGE
STANINE
SCHOOL YEAR
1972-73 (NOTE 1)
1973-74
1974-75
1975-76
1976-77
NORM GROUP (NATIONAL)
91 - 99 %ILE
81 - 90 %ILE
71 - 80 %ILE
61 - 70 %ILE
51 - 60 %ILE
41 - 50 %ILE
31 - 40 %ILE
21 - 30 %ILE
11 - 20 %ILE
1 - 10 %ILE
NUMBER OF STUDENTS TESTED 4303 4117 4469 3907 3754
3RD QUARTILE 84 %ILE 75 %ILE 74 %ILE 74 %ILE 78 %ILE 75 %ILE
MEDIAN 62 %ILE 50 %ILE 45 %ILE 47 %ILE 52 %ILE 50 %ILE
1ST QUARTILE 31 %ILE 22 %ILE 18 %ILE 22 %ILE 26 %ILE 25 %ILE
READING VOCABULARY RESULTS
NUMBER OF STUDENTS TESTED 4307 4142 4478 3908 3757
3RD QUARTILE 79 %ILE 76 %ILE 76 %ILE 77 %ILE 80 %ILE 75 %ILE
MEDIAN 63 %ILE 46 %ILE 46 %ILE 46 %ILE 49 %ILE 50 %ILE
1ST QUARTILE 30 %ILE 23 %ILE 19 %ILE 21 %ILE 24 %ILE 25 %ILE
READING COMPREHENSION RESULTS
NUMBER OF STUDENTS TESTED 4303 4129 4476 3908 3755
3RD QUARTILE 85 %ILE 76 %ILE 75 %ILE 77 %ILE 77 %ILE 75 %ILE
MEDIAN 62 %ILE 50 %ILE 47 %ILE 48 %ILE 53 %ILE 50 %ILE
1ST QUARTILE 33 %ILE 25 %ILE 20 %ILE 23 %ILE 27 %ILE 25 %ILE

NOTE 1 - AN EASIER LEVEL OF THE TEST WAS ADMINISTERED IN 1972-73. THESE RESULTS ARE NOT COMPARABLE TO TEST RESULTS OF LATER YEARS.

For the CAT Total Tests, the 3rd quartile and the 1st quartile points are graphically indicated by the upper and lower parts of the bar graph. The median point is indicated by the "arrow". The exact 3rd quartile, median, and 1st quartile points, as well as the number of students tested, are printed below the graph. This same information is printed for each of the two subtests, but no graphic display is provided for the subtest results.

Figure IV-15: ACHIEVEMENT PROFILES GRADE 4, AISD - READING TOTAL RESULTS



PERCENTILE RANGE	STANINE	SCHOOL YEAR 1972-73 (NOTE 1)	1973-74	1974-75	1975-76	1976-77	NORM GROUP (NATIONAL)
91 – 99 %ILE	9						
	8						
81 – 90 %ILE	7						
71 – 80 %ILE							
	6						
61 – 70 %ILE							
51 – 60 %ILE							
	5						
41 – 50 %ILE							
31 – 40 %ILE							
	4						
21 – 30 %ILE							
11 – 20 %ILE	3						
1 – 10 %ILE	2						
	1						
NUMBER OF STUDENTS TESTED		4305	4154	4353	3887	3739	
3RD QUARTILE		83 %ILE	76 %ILE	74 %ILE	82 %ILE	82 %ILE	75 %ILE
MEDIAN		55 %ILE	49 %ILE	46 %ILE	51 %ILE	56 %ILE	50 %ILE
1ST QUARTILE		27 %ILE	21 %ILE	18 %ILE	22 %ILE	27 %ILE	25 %ILE
MATH COMPUTATION RESULTS							
NUMBER OF STUDENTS TESTED		4305	4188	4360	3891	3744	
3RD QUARTILE		79 %ILE	78 %ILE	77 %ILE	86 %ILE	86 %ILE	75 %ILE
MEDIAN		59 %ILE	48 %ILE	48 %ILE	54 %ILE	58 %ILE	50 %ILE
1ST QUARTILE		26 %ILE	21 %ILE	18 %ILE	24 %ILE	27 %ILE	25 %ILE
MATH CONCEPTS & PROBLEMS RESULTS							
NUMBER OF STUDENTS TESTED		4307	4159	4446	3903	3750	
3RD QUARTILE		82 %ILE	75 %ILE	73 %ILE	77 %ILE	82 %ILE	75 %ILE
MEDIAN		58 %ILE	45 %ILE	41 %ILE	46 %ILE	51 %ILE	50 %ILE
1ST QUARTILE		30 %ILE	22 %ILE	17 %ILE	20 %ILE	26 %ILE	25 %ILE

COMMENTS.
NOTE 1 - AN EASIER LEVEL OF THE TEST WAS ADMINISTERED IN 1972-73. THESE TEST RESULTS ARE NOT COMPARABLE TO TEST RESULTS OF LATER YEARS.

For the CAT Total Tests, the 3rd quartile and the 1st quartile points are graphically indicated by the upper and lower parts of the bar graph. The median point is indicated by the "arrow". The exact 3rd quartile, median, and 1st quartile points, as well as the number of students tested, are printed below the graph. This same information is printed for each of the two subtests, but no graphic display is provided for the subtest results.

Figure IV-16: ACHIEVEMENT PROFILES GRADE 4, AISD - MATH TOTAL RESULTS

PERCENTILE RANGE	STANINE	SCHOOL YEAR					NORM GROUP (NATIONAL)
		1972–73 NO DATA	1973–74 NO DATA	1974–75 NO DATA	1975–76	1976–77	
91 – 99 %ILE	9						
	8						
81 – 90 %ILE	7						
71 – 80 %ILE					*** ***	*** ***	*** ***
61 – 70 %ILE	6				*** *** ***	*** *** ***	*** *** ***
51 – 60 %ILE					*** *** ***	*** *** ****	*** *** ****
41 – 50 %ILE	5				**** ****** ****	****** **** ***	****** **** ***
31 – 40 %ILE					*** *** ***	*** *** ***	*** *** ***
21 – 30 %ILE	4				*** *** ***	*** *** ***	***
11 – 20 %ILE	3						
1 – 10 %ILE	2						
	1						
NUMBER OF STUDENTS TESTED					4247	3754	
3RD QUARTILE					74 %ILE	74 %ILE	75 %ILE
MEDIAN					44 %ILE	48 %ILE	50 %ILE
1ST QUARTILE					22 %ILE	22 %ILE	25 %ILE
READING VOCABULARY RESULTS							
NUMBER OF STUDENTS TESTED					4248	3755	
3RD QUARTILE					72 %ILE	76 %ILE	75 %ILE
MEDIAN					46 %ILE	46 %ILE	50 %ILE
1ST QUARTILE					20 %ILE	22 %ILE	25 %ILE
READING COMPREHENSION RESULTS							
NUMBER OF STUDENTS TESTED					4247	3750	
3RD QUARTILE					75 %ILE	75 %ILE	75 %ILE
MEDIAN					46 %ILE	50 %ILE	50 %ILE
1ST QUARTILE					24 %ILE	24 %ILE	25 %ILE

COMMENTS:

For the CAT Total Tests, the 3rd quartile and the 1st quartile points are graphically indicated by the upper and lower parts of the bar graph. The median point is indicated by the "arrow". The exact 3rd quartile, median, and 1st quartile points, as well as the number of students tested, are printed below the graph. This same information is printed for each of the two subtests, but no graphic display is provided for the subtest results.

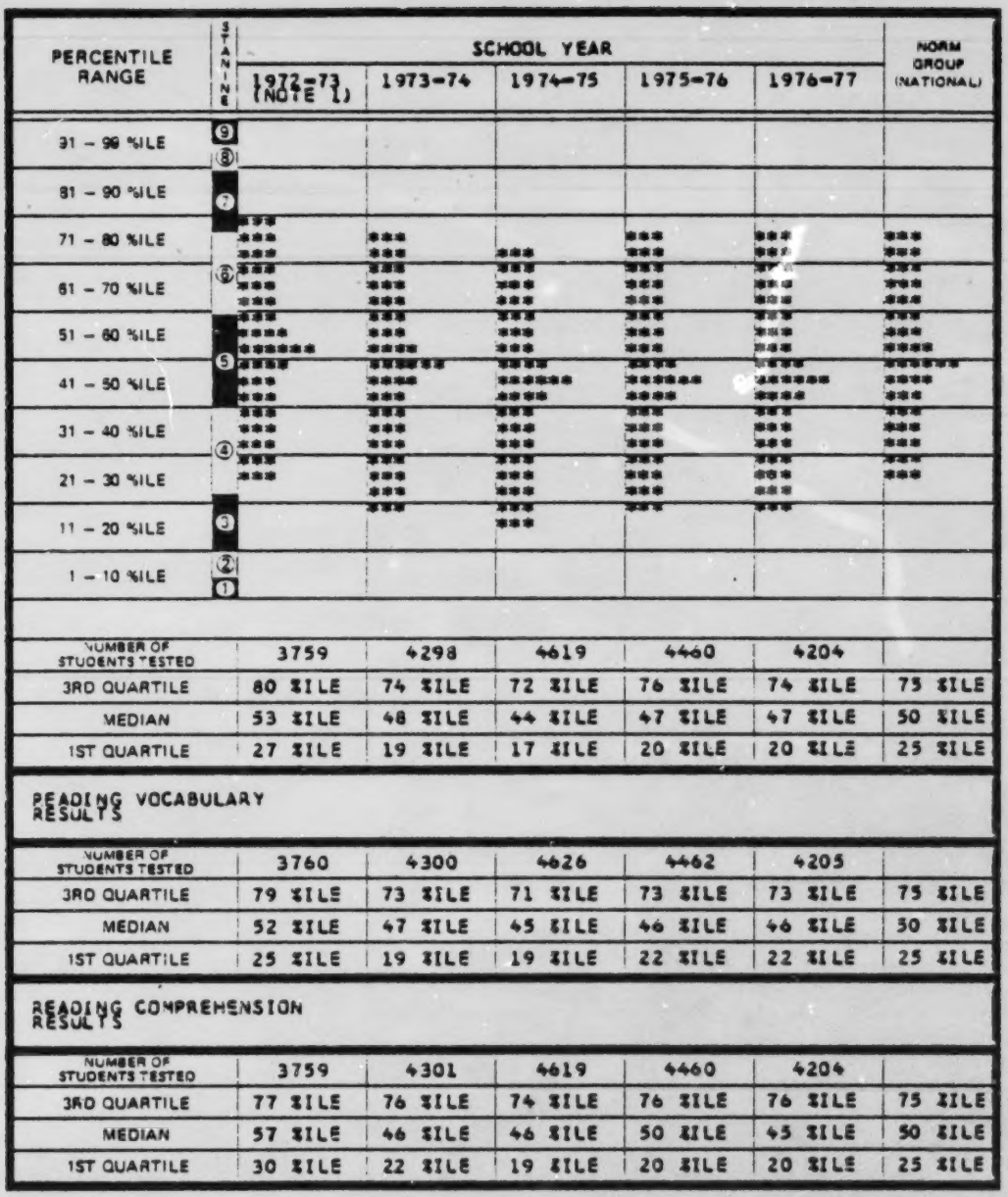
Figure IV-17: ACHIEVEMENT PROFILES GRADE 5, AISD - READING TOTAL RESULTS

PERCENTILE RANGE	STANINE	SCHOOL YEAR 1972–73	1973–74	1974–75	1975–76	1976–77	NORM GROUP (NATIONAL)
		NO DATA	NO DATA	NO DATA			
91 – 99 %ILE	9						
	8						
81 – 90 %ILE	7						
71 – 80 %ILE					***	***	***
					***	***	***
61 – 70 %ILE	6				***	***	***
					***	***	***
51 – 60 %ILE					***	***	***
					***	***	***
41 – 50 %ILE	5				****	****	*****
					******	******	****
					****	****	***
31 – 40 %ILE					***	***	***
	4				***	***	***
					***	***	***
21 – 30 %ILE					***	***	***
					***	***	
11 – 20 %ILE	3						
1 – 10 %ILE	2						
	1						
NUMBER OF STUDENTS TESTED					4177	3741	
3RD QUARTILE					77 %ILE	77 %ILE	75 %ILE
MEDIAN					47 %ILE	47 %ILE	50 %ILE
1ST QUARTILE					22 %ILE	23 %ILE	25 %ILE
MATH COMPUTATION RESULTS							
NUMBER OF STUDENTS TESTED					4180	3754	
3RD QUARTILE					77 %ILE	77 %ILE	75 %ILE
MEDIAN					47 %ILE	50 %ILE	50 %ILE
1ST QUARTILE					22 %ILE	24 %ILE	25 %ILE
MATH CONCEPTS & PROBLEMS RESULTS							
NUMBER OF STUDENTS TESTED					4236	3750	
3RD QUARTILE					77 %ILE	77 %ILE	75 %ILE
MEDIAN					49 %ILE	49 %ILE	50 %ILE
1ST QUARTILE					20 %ILE	23 %ILE	25 %ILE

COMMENTS.

For the CAT Total Tests, the 3rd quartile and the 1st quartile points are graphically indicated by the upper and lower parts of the bar graph. The median point is indicated by the "arrow". The exact 3rd quartile, median, and 1st quartile points, as well as the number of students tested, are printed below the graph. This same information is printed for each of the two subtests, but no graphic display is provided for the subtest results.

Figure IV-18: ACHIEVEMENT PROFILES GRADE 5, AISD - MATH TOTAL RESULTS

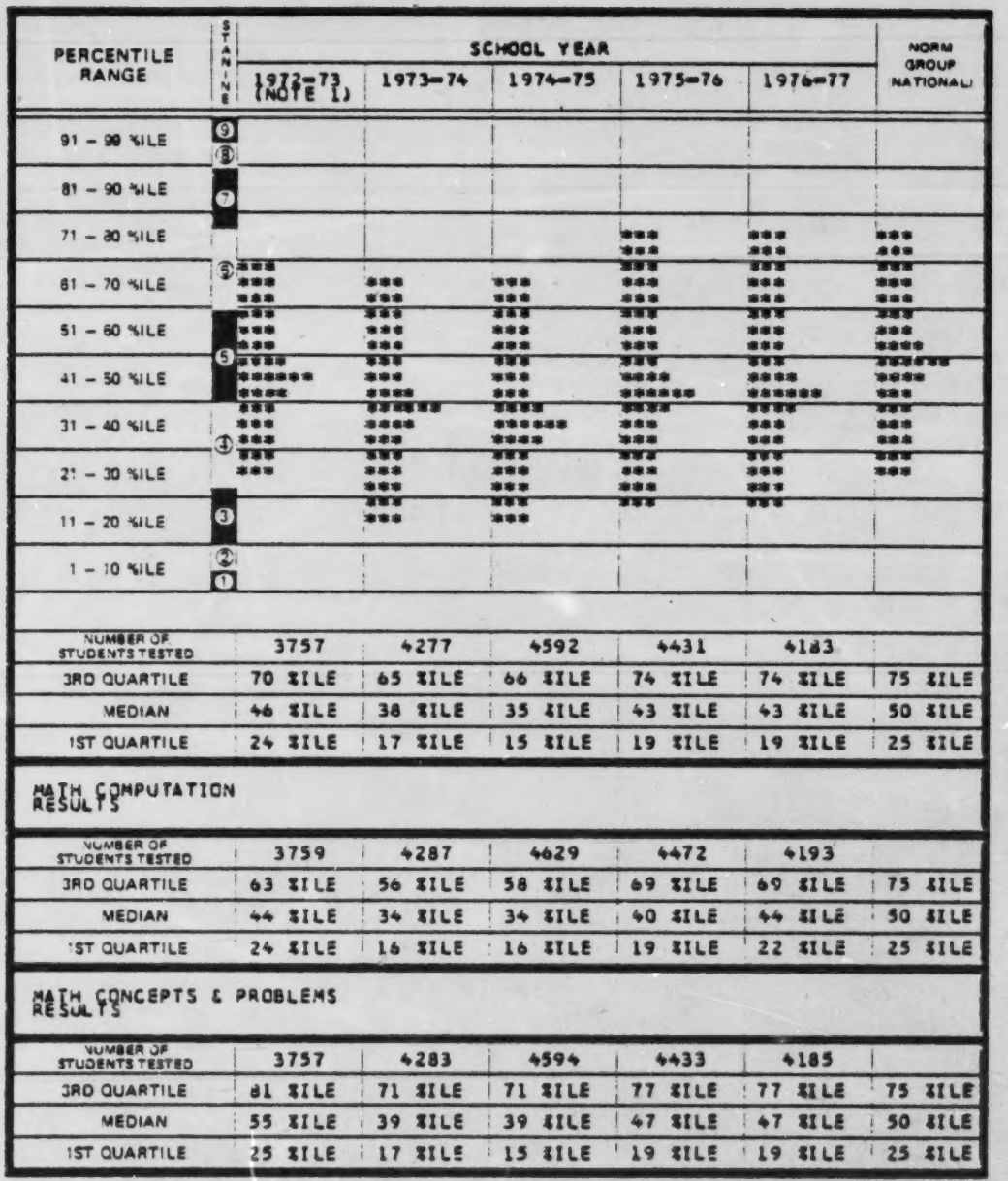


PERCENTILE RANGE	STANINE	SCHOOL YEAR 1972-73 (NOTE 1)	1973-74	1974-75	1975-76	1976-77	NORM GROUP (NATIONAL)
91 – 99 %ILE	9						
	8						
81 – 90 %ILE	7						
71 – 80 %ILE							
	6						
61 – 70 %ILE							
51 – 60 %ILE							
	5						
41 – 50 %ILE							
31 – 40 %ILE							
	4						
21 – 30 %ILE							
11 – 20 %ILE	3						
1 – 10 %ILE	2						
	1						
NUMBER OF STUDENTS TESTED		3759	4298	4619	4460	4204	
3RD QUARTILE		80 %ILE	74 %ILE	72 %ILE	76 %ILE	74 %ILE	75 %ILE
MEDIAN		53 %ILE	48 %ILE	44 %ILE	47 %ILE	47 %ILE	50 %ILE
1ST QUARTILE		27 %ILE	19 %ILE	17 %ILE	20 %ILE	20 %ILE	25 %ILE
READING VOCABULARY RESULTS							
NUMBER OF STUDENTS TESTED		3760	4300	4626	4462	4205	
3RD QUARTILE		79 %ILE	73 %ILE	71 %ILE	73 %ILE	73 %ILE	75 %ILE
MEDIAN		52 %ILE	47 %ILE	45 %ILE	46 %ILE	46 %ILE	50 %ILE
1ST QUARTILE		25 %ILE	19 %ILE	19 %ILE	22 %ILE	22 %ILE	25 %ILE
READING COMPREHENSION RESULTS							
NUMBER OF STUDENTS TESTED		3759	4301	4619	4460	4204	
3RD QUARTILE		77 %ILE	76 %ILE	74 %ILE	76 %ILE	76 %ILE	75 %ILE
MEDIAN		57 %ILE	46 %ILE	46 %ILE	50 %ILE	45 %ILE	50 %ILE
1ST QUARTILE		30 %ILE	22 %ILE	19 %ILE	20 %ILE	20 %ILE	25 %ILE

COMMENTS:
NOTE 1 - AN EASIER LEVEL OF THE TEST WAS ADMINISTERED IN 1972-73. THESE TEST RESULTS ARE NOT COMPARABLE TO TEST RESULTS OF LATER YEARS.

For the CAT Total Tests, the 3rd quartile and the 1st quartile points are graphically indicated by the upper and lower parts of the bar graph. The median point is indicated by the "arrow". The exact 3rd quartile, median, and 1st quartile points, as well as the number of students tested, are printed below the graph. This same information is printed for each of the two subtests, but no graphic display is provided for the subtest results.

Figure IV-19: ACHIEVEMENT PROFILES GRADE 6, AISD - READING TOTAL RESULTS

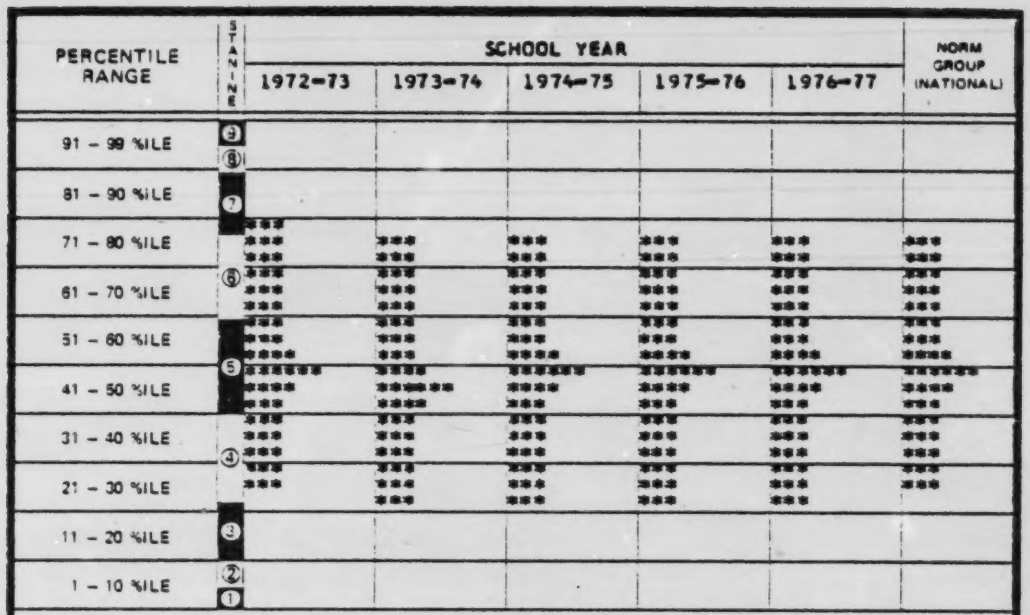


PERCENTILE RANGE	STANINE	SCHOOL YEAR 1972-73 (NOTE 1)	1973-74	1974-75	1975-76	1976-77	NORM GROUP NATIONAL
91 - 99 %ILE	9						
	8						
81 - 90 %ILE	7						
71 - 80 %ILE							
61 - 70 %ILE	6						
51 - 60 %ILE							
41 - 50 %ILE	5						
31 - 40 %ILE							
21 - 30 %ILE	4						
11 - 20 %ILE	3						
1 - 10 %ILE	2						
	1						
NUMBER OF STUDENTS TESTED		3757	4277	4592	4431	4183	
3RD QUARTILE		70 %ILE	65 %ILE	66 %ILE	74 %ILE	74 %ILE	75 %ILE
MEDIAN		46 %ILE	38 %ILE	35 %ILE	43 %ILE	43 %ILE	50 %ILE
1ST QUARTILE		24 %ILE	17 %ILE	15 %ILE	19 %ILE	19 %ILE	25 %ILE
MATH COMPUTATION RESULTS							
NUMBER OF STUDENTS TESTED		3759	4287	4629	4472	4193	
3RD QUARTILE		63 %ILE	56 %ILE	58 %ILE	69 %ILE	69 %ILE	75 %ILE
MEDIAN		44 %ILE	34 %ILE	34 %ILE	40 %ILE	44 %ILE	50 %ILE
1ST QUARTILE		24 %ILE	16 %ILE	16 %ILE	19 %ILE	22 %ILE	25 %ILE
MATH CONCEPTS & PROBLEMS RESULTS							
NUMBER OF STUDENTS TESTED		3757	4283	4594	4433	4185	
3RD QUARTILE		81 %ILE	71 %ILE	71 %ILE	77 %ILE	77 %ILE	75 %ILE
MEDIAN		55 %ILE	39 %ILE	39 %ILE	47 %ILE	47 %ILE	50 %ILE
1ST QUARTILE		25 %ILE	17 %ILE	15 %ILE	19 %ILE	19 %ILE	25 %ILE

COMMENTS.
NOTE 1 - AN EASIER LEVEL OF THE TEST WAS ADMINISTERED IN 1972-73. THESE TEST RESULTS ARE NOT COMPARABLE TO TEST RESULTS OF LATER YEARS.

For the CAT Total Tests, the 3rd quartile and the 1st quartile points are graphically indicated by the upper and lower parts of the bar graph. The median point is indicated by the "arrow". The exact 3rd quartile, median, and 1st quartile points, as well as the number of students tested, are printed below the graph. This same information is printed for each of the two subtests, but no graphic display is provided for the subtest results.

Figure IV-20: ACHIEVEMENT PROFILES GRADE 6, AISD - MATH TOTAL RESULTS



NUMBER OF STUDENTS TESTED	4037	4368	4646	4646	4576	
3RD QUARTILE	79 %ILE	76 %ILE	77 %ILE	77 %ILE	77 %ILE	75 %ILE
MEDIAN	50 %ILE	47 %ILE	48 %ILE	50 %ILE	48 %ILE	50 %ILE
1ST QUARTILE	24 %ILE	22 %ILE	22 %ILE	23 %ILE	21 %ILE	25 %ILE

READING VOCABULARY RESULTS

NUMBER OF STUDENTS TESTED	4038	4371	4648	4640	4577	
3RD QUARTILE	75 %ILE	75 %ILE	75 %ILE	78 %ILE	78 %ILE	75 %ILE
MEDIAN	50 %ILE	50 %ILE	50 %ILE	52 %ILE	48 %ILE	50 %ILE
1ST QUARTILE	25 %ILE	22 %ILE	22 %ILE	24 %ILE	21 %ILE	25 %ILE

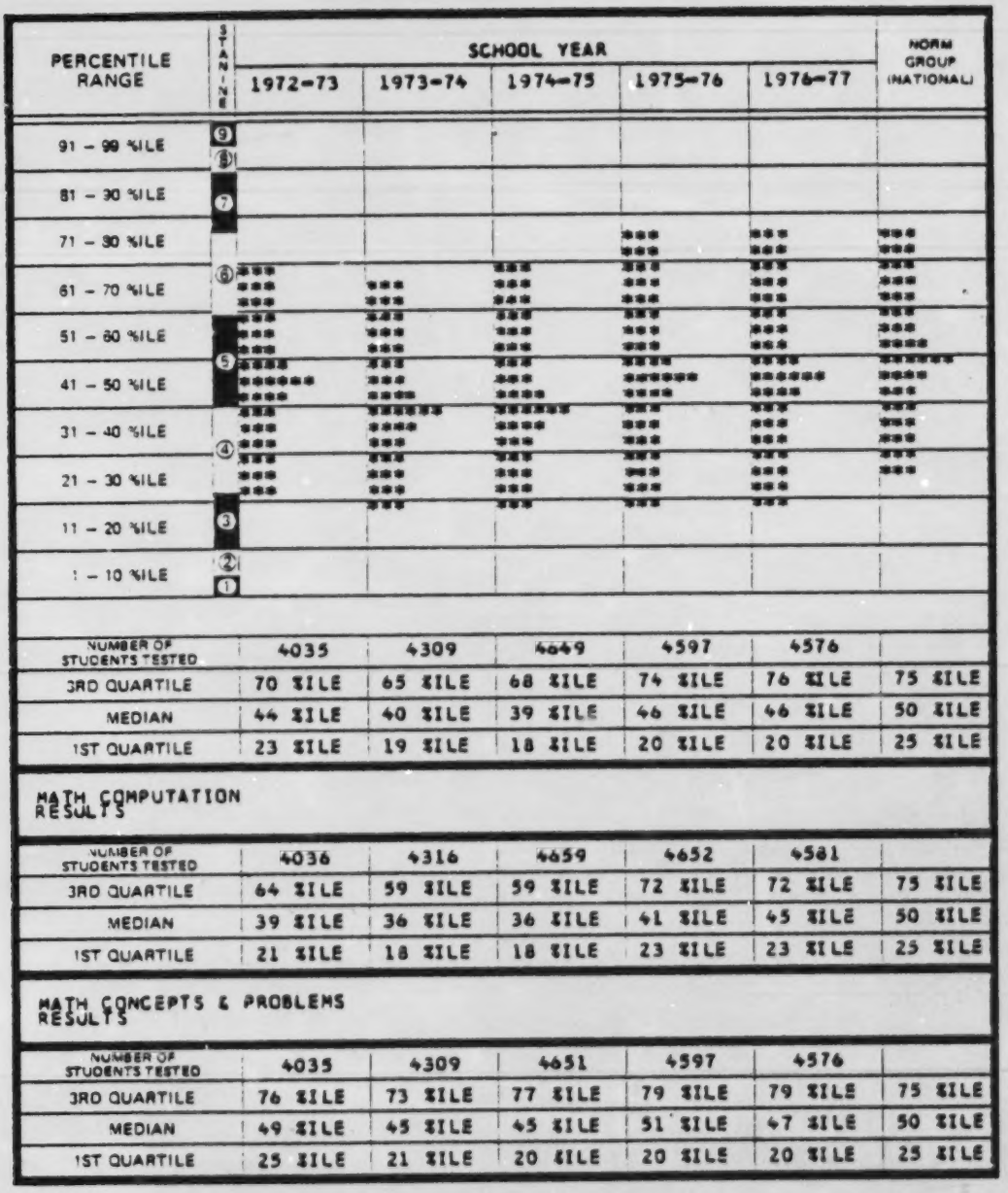
READING COMPREHENSION RESULTS

NUMBER OF STUDENTS TESTED	4038	4371	4648	4651	4576	
3RD QUARTILE	78 %ILE	75 %ILE	77 %ILE	77 %ILE	77 %ILE	75 %ILE
MEDIAN	51 %ILE	47 %ILE	49 %ILE	49 %ILE	49 %ILE	50 %ILE
1ST QUARTILE	24 %ILE	21 %ILE	21 %ILE	24 %ILE	19 %ILE	25 %ILE

COMMENTS:

For the CAT Total Tests, the 3rd quartile and the 1st quartile points are graphically indicated by the upper and lower parts of the bar graph. The median point is indicated by the "arrow". The exact 3rd quartile, median, and 1st quartile points, as well as the number of students tested, are printed below the graph. This same information is printed for each of the two subtests, but no graphic display is provided for the subtest results.

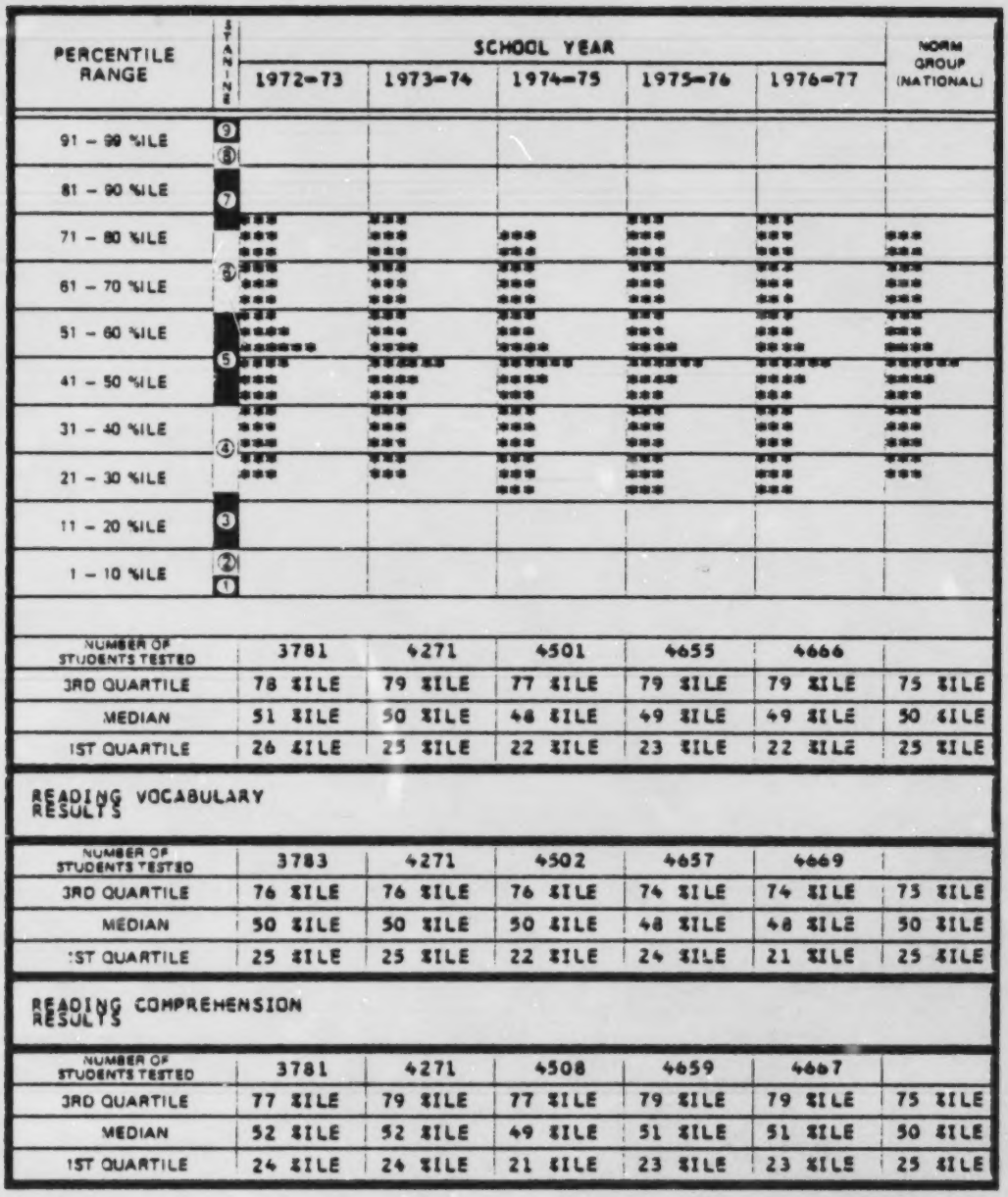
Figure IV-21: ACHIEVEMENT PROFILES GRADE 7, AISD - READING TOTAL RESULTS


PERCENTILE RANGE
STANINE
SCHOOL YEAR
1972-73
1973-74
1974-75
1975-76
1976-77
NORM GROUP (NATIONAL)
91 - 99 %ILE
81 - 90 %ILE
71 - 80 %ILE
61 - 70 %ILE
51 - 60 %ILE
41 - 50 %ILE
31 - 40 %ILE
21 - 30 %ILE
11 - 20 %ILE
1 - 10 %ILE
NUMBER OF STUDENTS TESTED 4035 4309 4649 4597 4576
3RD QUARTILE 70 %ILE 65 %ILE 68 %ILE 74 %ILE 76 %ILE 75 %ILE
MEDIAN 44 %ILE 40 %ILE 39 %ILE 46 %ILE 46 %ILE 50 %ILE
1ST QUARTILE 23 %ILE 19 %ILE 18 %ILE 20 %ILE 20 %ILE 25 %ILE
MATH COMPUTATION RESULTS
NUMBER OF STUDENTS TESTED 4036 4316 4659 4652 4581
3RD QUARTILE 64 %ILE 59 %ILE 59 %ILE 72 %ILE 72 %ILE 75 %ILE
MEDIAN 39 %ILE 36 %ILE 36 %ILE 41 %ILE 45 %ILE 50 %ILE
1ST QUARTILE 21 %ILE 18 %ILE 18 %ILE 23 %ILE 23 %ILE 25 %ILE
MATH CONCEPTS & PROBLEMS RESULTS
NUMBER OF STUDENTS TESTED 4035 4309 4651 4597 4576
3RD QUARTILE 76 %ILE 73 %ILE 77 %ILE 79 %ILE 79 %ILE 75 %ILE
MEDIAN 49 %ILE 45 %ILE 45 %ILE 51 %ILE 47 %ILE 50 %ILE
1ST QUARTILE 25 %ILE 21 %ILE 20 %ILE 20 %ILE 20 %ILE 25 %ILE

COMMENTS:

For the CAT Total Tests, the 3rd quartile and the 1st quartile points are graphically indicated by the upper and lower parts of the bar graph. The median point is indicated by the "arrow". The exact 3rd quartile, median, and 1st quartile points, as well as the number of students tested, are printed below the graph. This same information is printed for each of the two subtests, but no graphic display is provided for the subtest results.

Figure IV-22: ACHIEVEMENT PROFILES GRADE 7, AISD - MATH TOTAL RESULTS

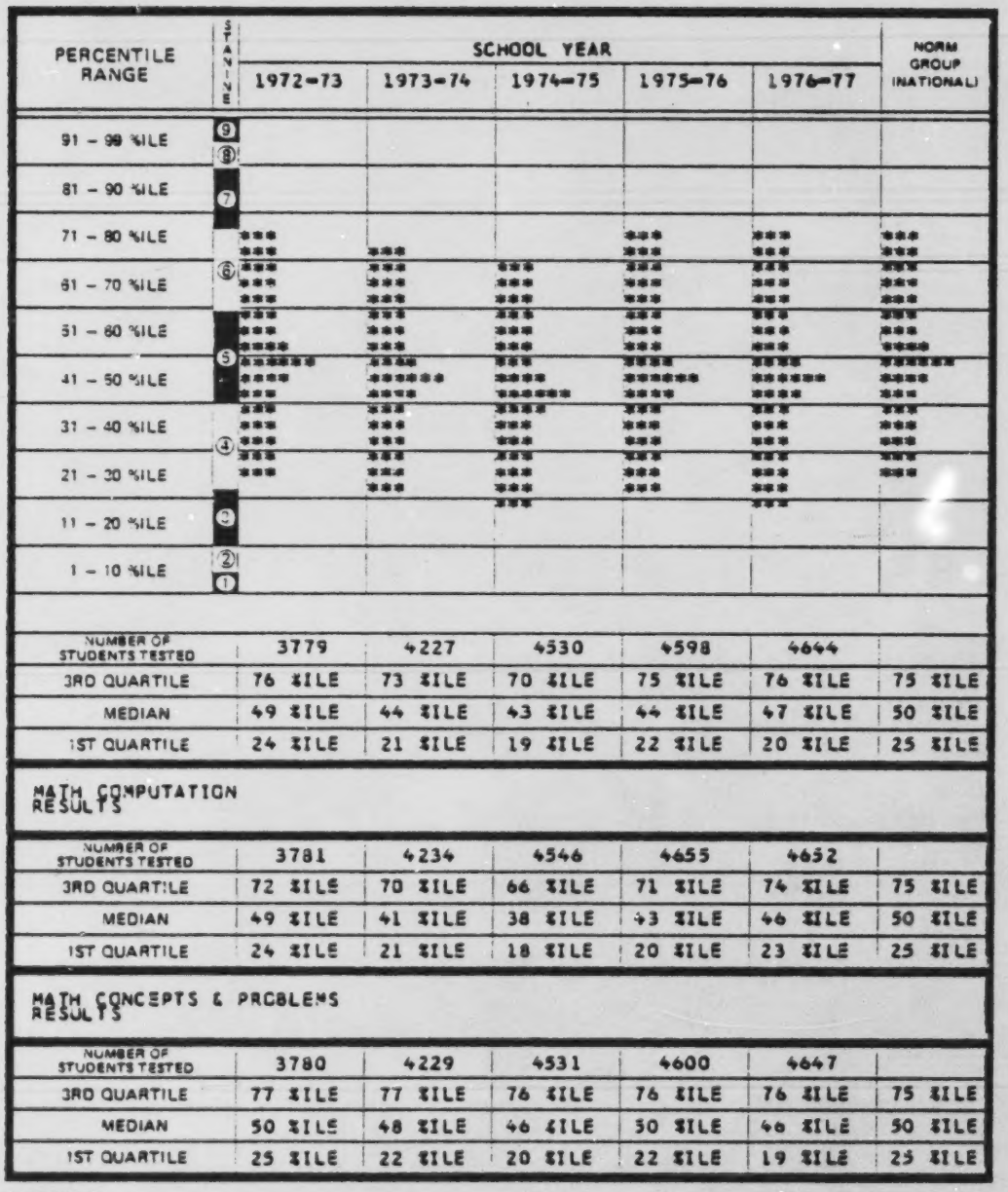


PERCENTILE RANGE	STANINE	SCHOOL YEAR 1972-73	1973-74	1974-75	1975-76	1976-77	NORM GROUP (NATIONAL)
91 - 99 %ILE	9						
	8						
81 - 90 %ILE	7						
71 - 80 %ILE							
61 - 70 %ILE	6						
51 - 60 %ILE							
41 - 50 %ILE	5						
31 - 40 %ILE							
21 - 30 %ILE	4						
11 - 20 %ILE	3						
1 - 10 %ILE	2						
	1						
NUMBER OF STUDENTS TESTED		3781	4271	4501	4655	4666	
3RD QUARTILE		78 %ILE	79 %ILE	77 %ILE	79 %ILE	79 %ILE	75 %ILE
MEDIAN		51 %ILE	50 %ILE	48 %ILE	49 %ILE	49 %ILE	50 %ILE
1ST QUARTILE		26 %ILE	25 %ILE	22 %ILE	23 %ILE	22 %ILE	25 %ILE
READING VOCABULARY RESULTS							
NUMBER OF STUDENTS TESTED		3783	4271	4502	4657	4669	
3RD QUARTILE		76 %ILE	76 %ILE	76 %ILE	74 %ILE	74 %ILE	75 %ILE
MEDIAN		50 %ILE	50 %ILE	50 %ILE	48 %ILE	48 %ILE	50 %ILE
1ST QUARTILE		25 %ILE	25 %ILE	22 %ILE	24 %ILE	21 %ILE	25 %ILE
READING COMPREHENSION RESULTS							
NUMBER OF STUDENTS TESTED		3781	4271	4508	4659	4667	
3RD QUARTILE		77 %ILE	79 %ILE	77 %ILE	79 %ILE	79 %ILE	75 %ILE
MEDIAN		52 %ILE	52 %ILE	49 %ILE	51 %ILE	51 %ILE	50 %ILE
1ST QUARTILE		24 %ILE	24 %ILE	21 %ILE	23 %ILE	23 %ILE	25 %ILE

COMMENTS:

For the CAT Total Tests, the 3rd quartile and the 1st quartile points are graphically indicated by the upper and lower parts of the bar graph. The median point is indicated by the "arrow". The exact 3rd quartile, median, and 1st quartile points, as well as the number of students tested, are printed below the graph. This same information is printed for each of the two subtests, but no graphic display is provided for the subtest results.

Figure IV-23: ACHIEVEMENT PROFILES GRADE 8, AISD - READING TOTAL RESULTS


PERCENTILE RANGE
STANINE
SCHOOL YEAR
1972-73
1973-74
1974-75
1975-76
1976-77
NORM GROUP (NATIONAL)
91 - 99 %ILE
81 - 90 %ILE
71 - 80 %ILE
61 - 70 %ILE
51 - 60 %ILE
41 - 50 %ILE
31 - 40 %ILE
21 - 30 %ILE
11 - 20 %ILE
1 - 10 %ILE
NUMBER OF STUDENTS TESTED 3779 4227 4530 4598 4644
3RD QUARTILE 76 %ILE 73 %ILE 70 %ILE 75 %ILE 76 %ILE 75 %ILE
MEDIAN 49 %ILE 44 %ILE 43 %ILE 44 %ILE 47 %ILE 50 %ILE
1ST QUARTILE 24 %ILE 21 %ILE 19 %ILE 22 %ILE 20 %ILE 25 %ILE
MATH COMPUTATION RESULTS
NUMBER OF STUDENTS TESTED 3781 4234 4546 4655 4652
3RD QUARTILE 72 %ILE 70 %ILE 66 %ILE 71 %ILE 74 %ILE 75 %ILE
MEDIAN 49 %ILE 41 %ILE 38 %ILE 43 %ILE 46 %ILE 50 %ILE
1ST QUARTILE 24 %ILE 21 %ILE 18 %ILE 20 %ILE 23 %ILE 25 %ILE
MATH CONCEPTS & PROBLEMS RESULTS
NUMBER OF STUDENTS TESTED 3780 4229 4531 4600 4647
3RD QUARTILE 77 %ILE 77 %ILE 76 %ILE 76 %ILE 76 %ILE 75 %ILE
MEDIAN 50 %ILE 48 %ILE 46 %ILE 50 %ILE 46 %ILE 50 %ILE
1ST QUARTILE 25 %ILE 22 %ILE 20 %ILE 22 %ILE 19 %ILE 25 %ILE

COMMENTS:

For the CAT Total Tests, the 3rd quartile and the 1st quartile points are graphically indicated by the upper and lower parts of the bar graph. The median point is indicated by the "arrow". The exact 3rd quartile, median, and 1st quartile points, as well as the number of students tested, are printed below the graph. This same information is printed for each of the two subtests, but no graphic display is provided for the subtest results.

Figure IV-24: ACHIEVEMENT PROFILES GRADE 8, AISD - MATH TOTAL RESULTS

GRADE	1972-1973	1973-1974	1974-1975	1975-1976	1976-1977	"GAIN" or "LOSS" 1973-74 to 1976-77	"GAIN" or "LOSS" 1975-76 to 1976-77
1	--	--	--	75	75	--	no change
2	62	62	63	61	65	+3	+4
3	--	--	--	61	61	--	no change
4	63*	50	45	47	52	+2	+5
5	--	--	--	44	48	--	+4
6	53*	48	44	47	47	-1	no change
7	50	47	48	50	48	+1	-2
8	51	50	48	49	49	-1	no change

--: A dash is entered if students in this grade were not tested during this particular year.

* : The test level used during the 1972-73 year was "easier" than that used in succeeding years. Accordingly, the 1972-73 median is not comparable to the median scores of later years.

Figure IV-25: CAT READING, DISTRICTWIDE MEDIAN PERCENTILE SCORES FOR 1972-73 THROUGH 1976-77

GRADE	1972-1973	1973-1974	1974-1975	1975-1976	1976-1977	"GAIN" or "LOSS" 1973-74 to 1976-77	"GAIN" or "LOSS" 1975-76 to 1976-77
1	--	--	--	70	70	--	no change
2	58	51	54	62	66	+15	+4
3	--	--	--	56	59	--	+3
4	55*	49	46	51	56	+7	+5
5	--	--	--	47	47	--	no change
6	46*	39	36	43	43	+4	no change
7	44	40	39	46	46	+6	no change
8	49	44	43	44	47	+3	+3

--: A dash is entered if students in this grade were not tested during this particular year.

* : The test level used during the 1972-73 year was "easier" than that used in succeeding years. Accordingly, the 1972-73 median is not comparable to the median scores of later years.

Figure IV-26: CAT MATHEMATICS, DISTRICTWIDE MEDIAN PERCENTILE SCORES FOR 1972-73 THROUGH 1976-77

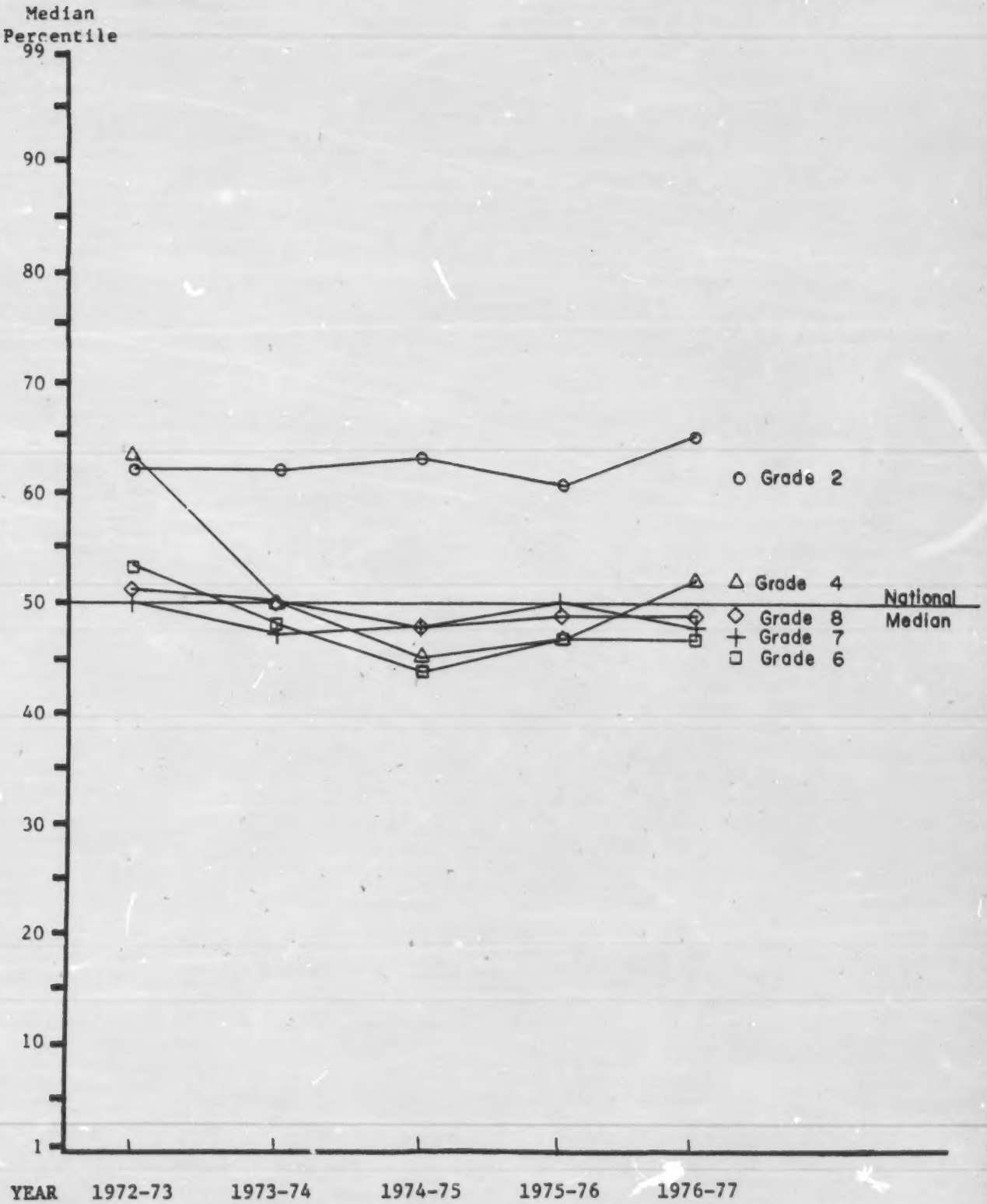


Figure IV-27: CAT READING, 4 YEAR TRENDS BY GRADE (GRADES 2,4,6,7, AND 8 ONLY)

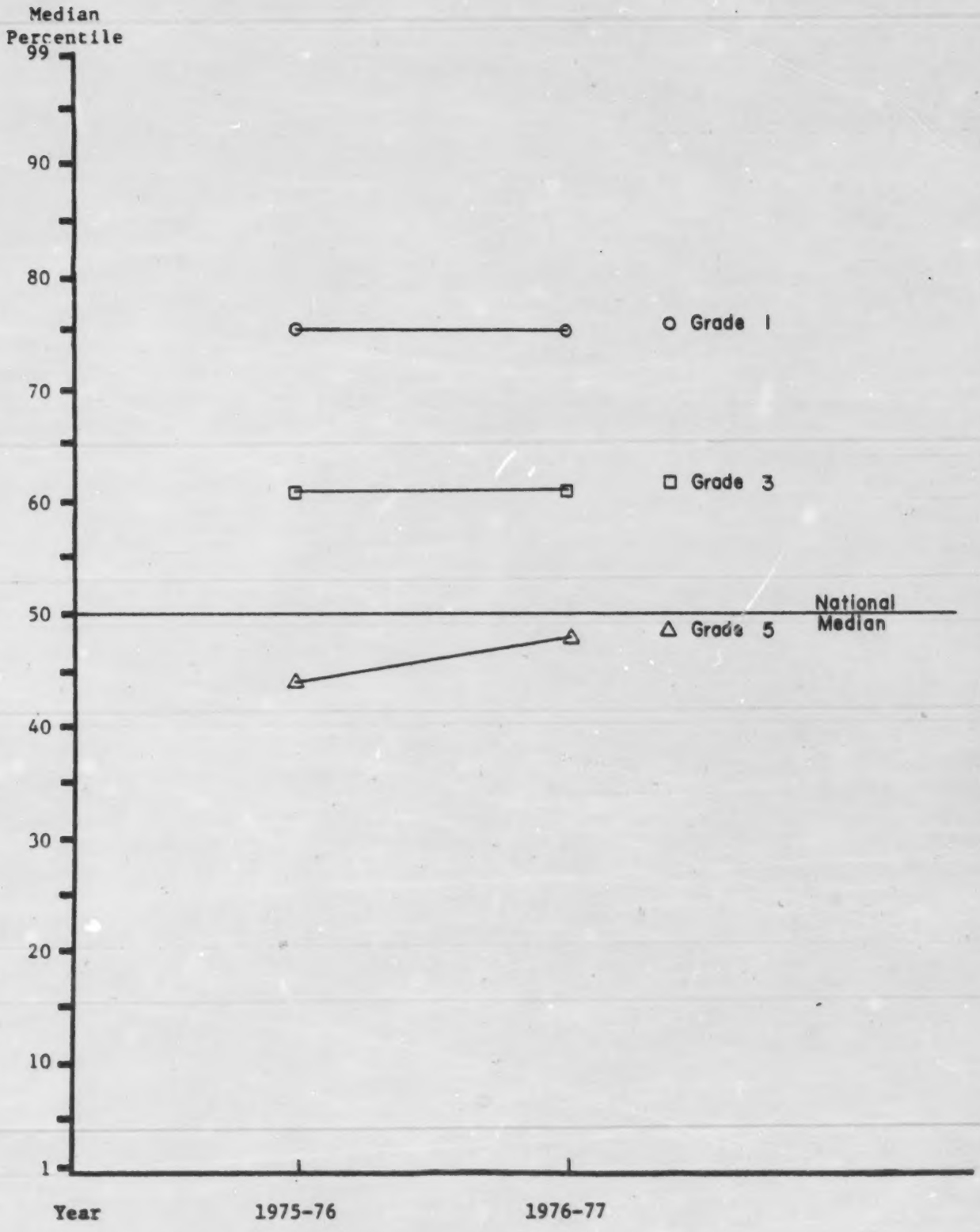


Figure IV-28: CAT READING, 2 YEAR TRENDS BY GRADE (GRADES 1,3, AND 5 ONLY)

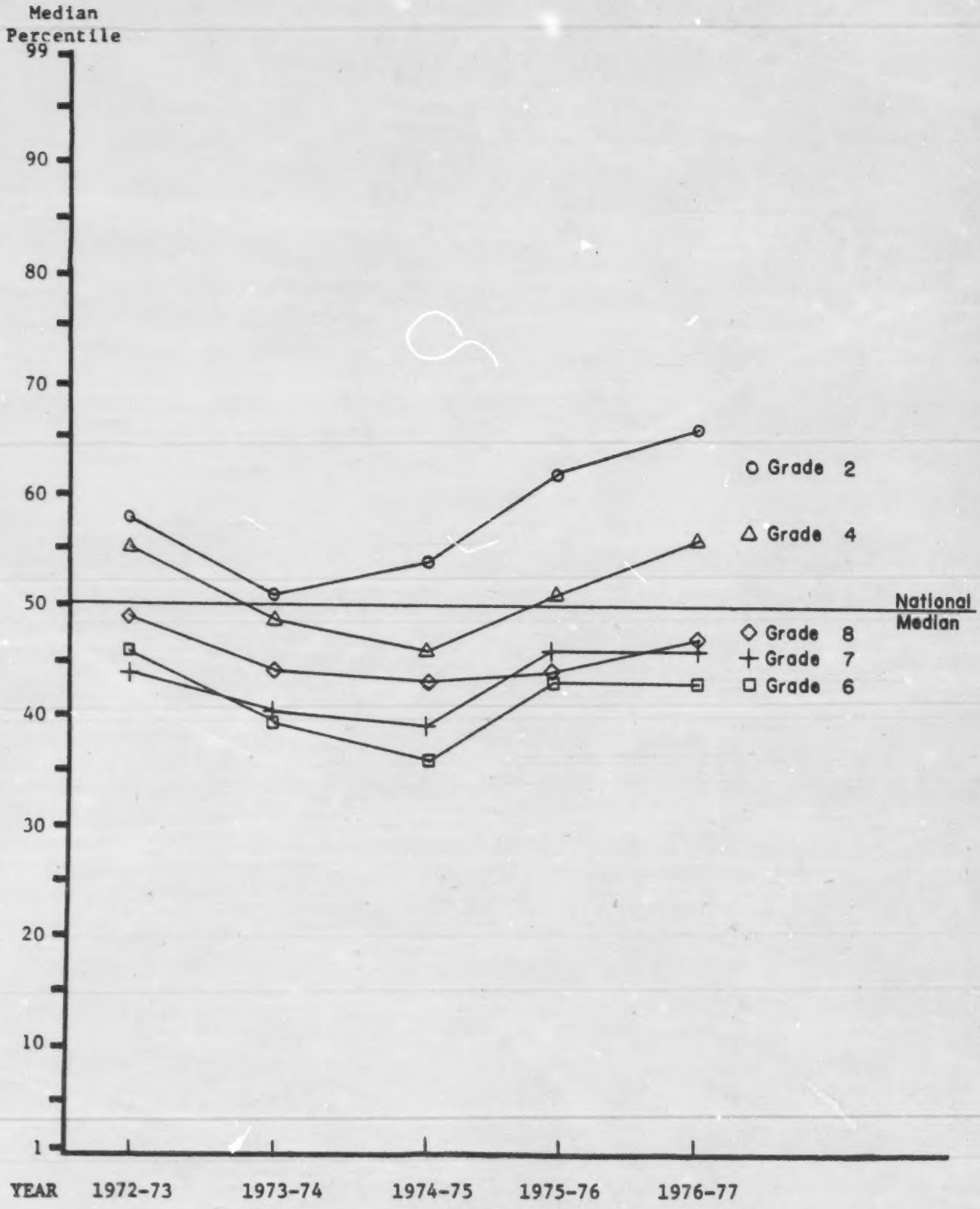


Figure IV-29: CAT MATHEMATICS, 4 YEAR TRENDS BY GRADE (GRADES 2,4,6,7, AND 8 ONLY)

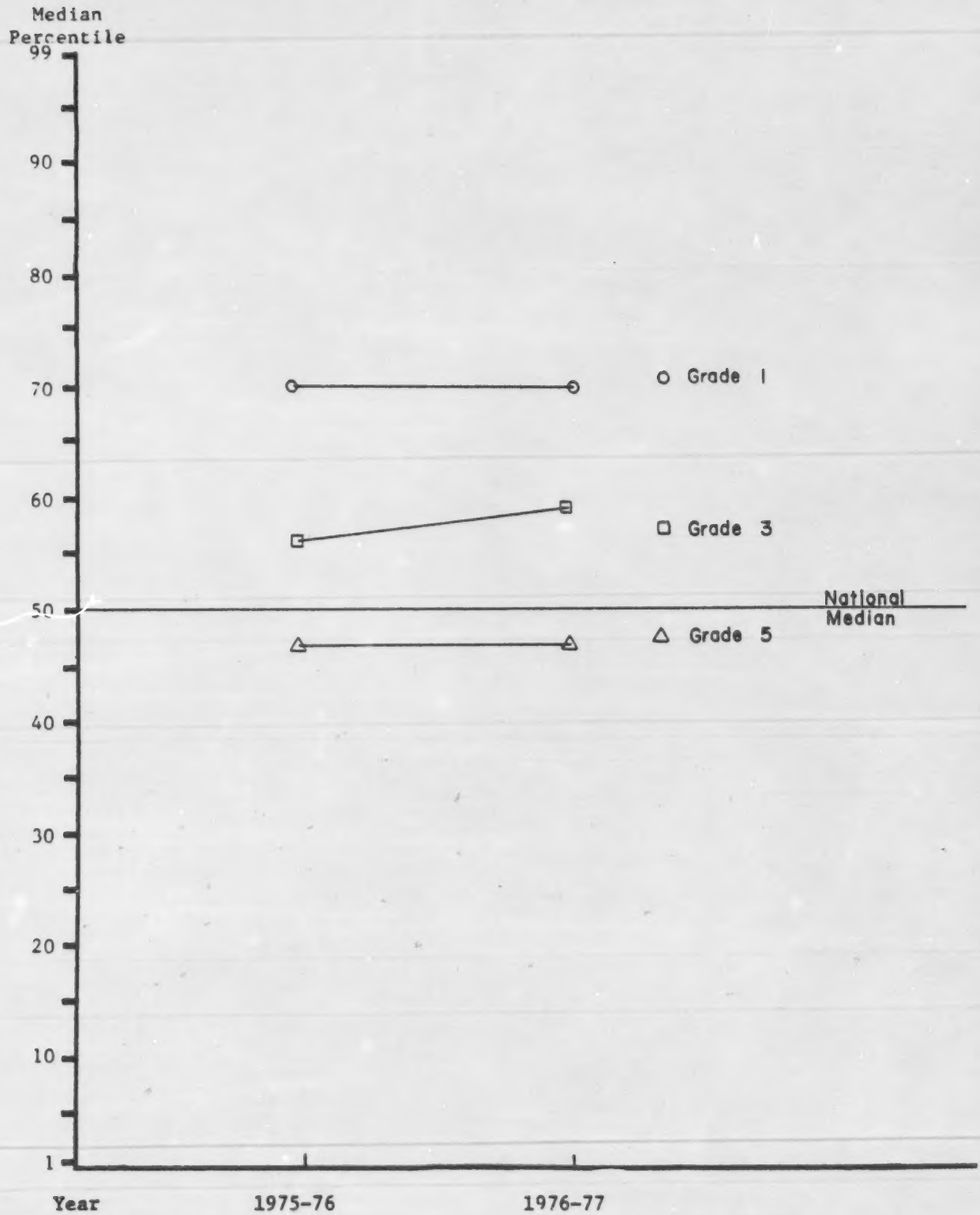
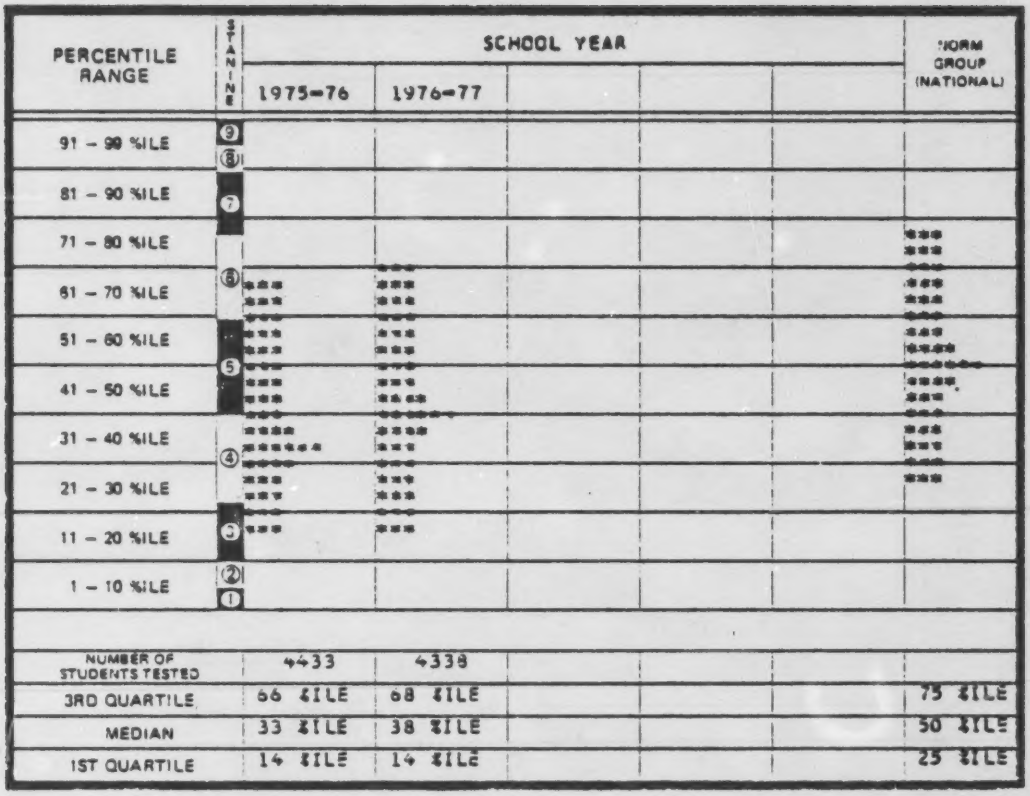
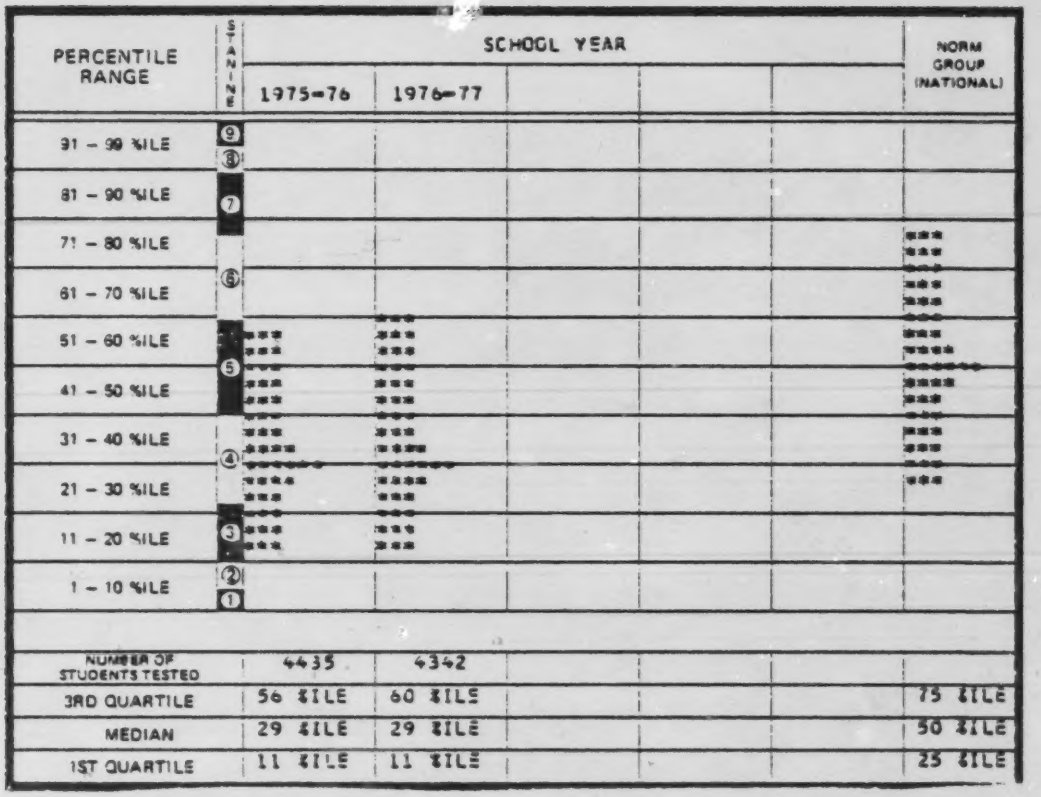


Figure IV-30: CAT MATHEMATICS, 2 YEAR TRENDS BY GRADE (GRADES 1,3, AND 5 ONLY)



For each STEP test, the 3rd quartile point and the 1st quartile point are graphically indicated above by the upper and lower parts of the bar graph. The median point is indicated by the "arrow." For each test, the exact median and quartile points, as well as the number of students tested, are printed below the graph for the test.

Figure IV-31: 9th GRADE STEP II ACHIEVEMENT PROFILE READING - AISD



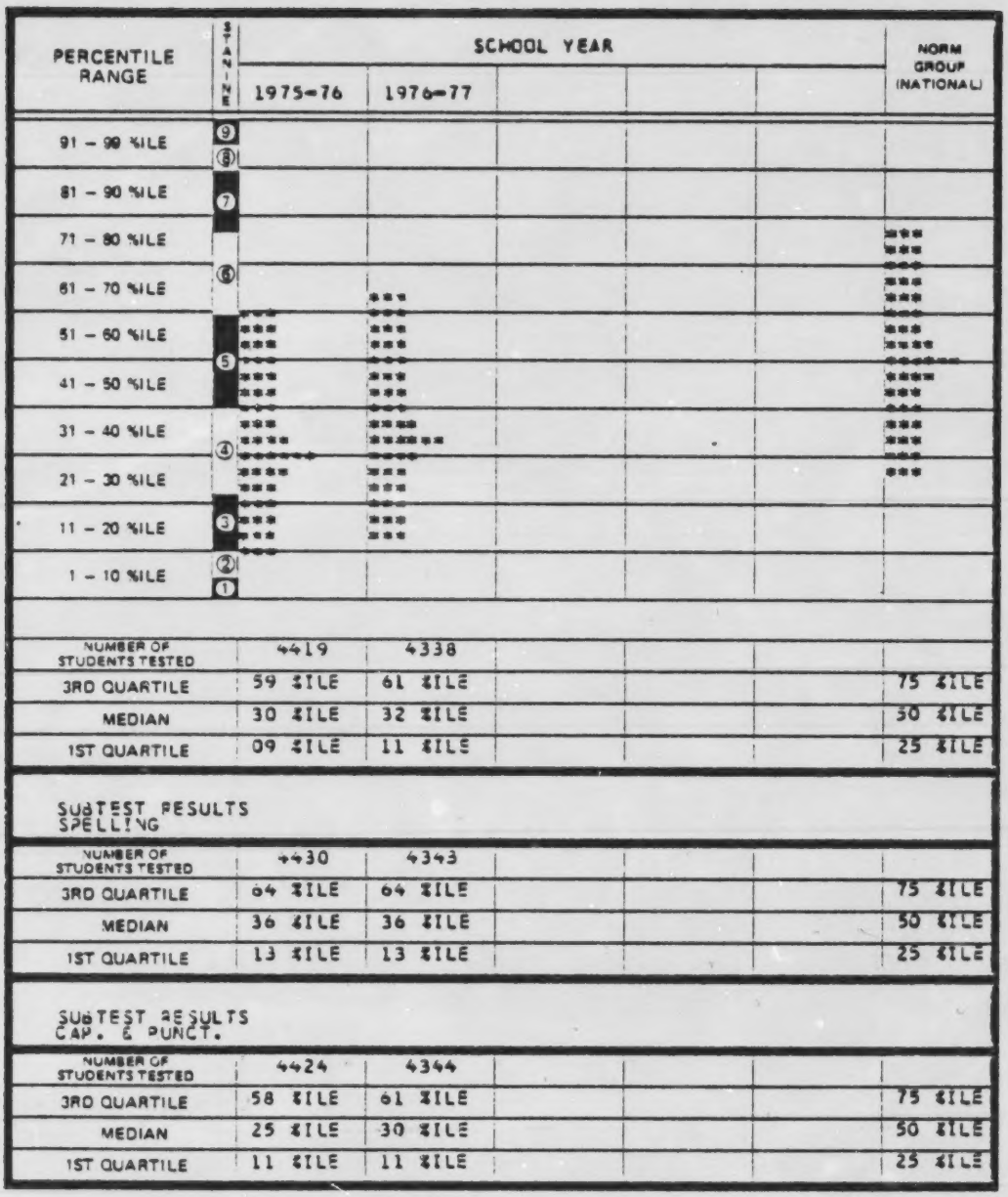
For each STEP test, the 3rd quartile point and the 1st quartile point are graphically indicated above by the upper and lower parts of the bar graph. The median point is indicated by the "arrow." For each test, the exact median and quartile points, as well as the number of students tested, are printed below the graph for the test.

Figure IV-32: 9th GRADE STEP II ACHIEVEMENT PROFILE ENGLISH EXPRESSION - AISD

PERCENTILE RANGE	STANINE	SCHOOL YEAR 1975-76	SCHOOL YEAR 1976-77				NORM GROUP (NATIONAL)
91 – 99 %ILE	9						
	8						
81 – 90 %ILE	7						
71 – 80 %ILE							
	6						
61 – 70 %ILE							
51 – 60 %ILE							
	5						
41 – 50 %ILE							
31 – 40 %ILE							
	4						
21 – 30 %ILE							
11 – 20 %ILE	3						
1 – 10 %ILE	2						
	1						
NUMBER OF STUDENTS TESTED		4396	4277				
3RD QUARTILE		64 %ILE	67 %ILE				75 %ILE
MEDIAN		32 %ILE	34 %ILE				50 %ILE
1ST QUARTILE		13 %ILE	13 %ILE				25 %ILE

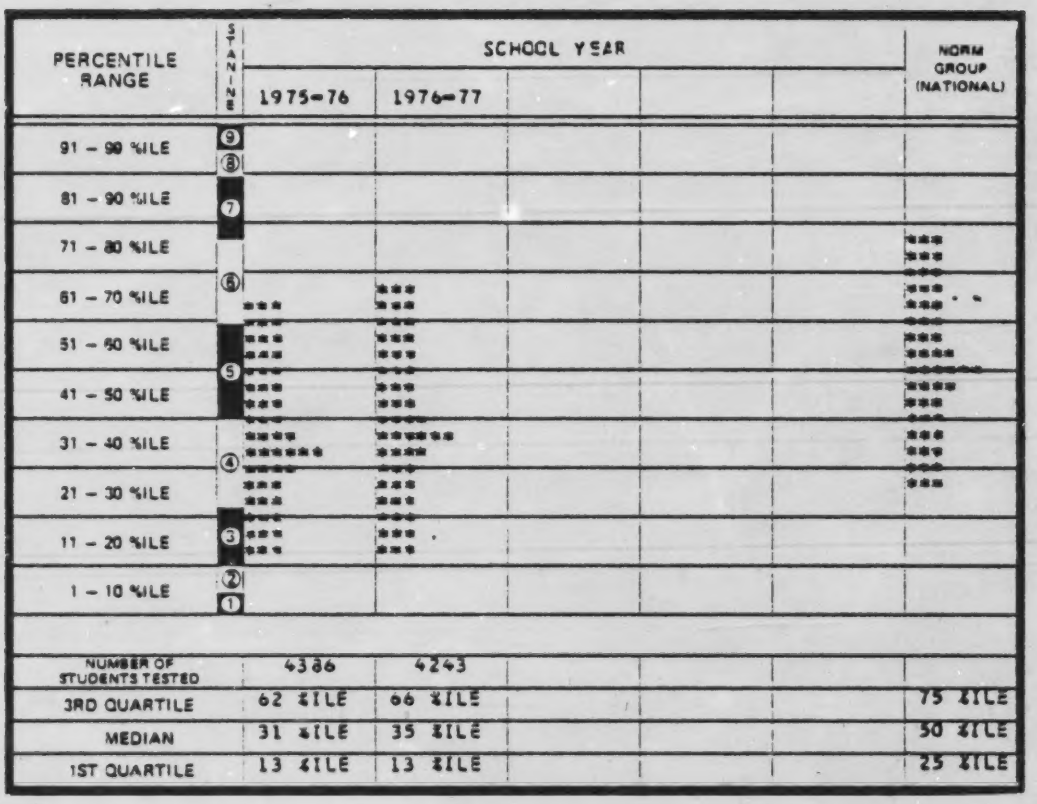
For each STEP test, the 3rd quartile point and the 1st quartile point are graphically indicated above by the upper and lower parts of the bar graph. The median point is indicated by the "arrow." For each test, the exact median and quartile points, as well as the number of students tested, are printed below the graph for the test.

Figure IV-33: 9th GRADE STEP II ACHIEVEMENT PROFILE SOCIAL STUDIES - AISD


PERCENTILE RANGE
STANINE
SCHOOL YEAR
1975-76
1976-77
NORM GROUP (NATIONAL)
91 - 99 %ILE
81 - 90 %ILE
71 - 80 %ILE
61 - 70 %ILE
51 - 60 %ILE
41 - 50 %ILE
31 - 40 %ILE
21 - 30 %ILE
11 - 20 %ILE
1 - 10 %ILE
NUMBER OF STUDENTS TESTED 4419 4338
3RD QUARTILE 59 %ILE 61 %ILE 75 %ILE
MEDIAN 30 %ILE 32 %ILE 50 %ILE
1ST QUARTILE 09 %ILE 11 %ILE 25 %ILE
SUBTEST RESULTS SPELLING
NUMBER OF STUDENTS TESTED 4430 4343
3RD QUARTILE 64 %ILE 64 %ILE 75 %ILE
MEDIAN 36 %ILE 36 %ILE 50 %ILE
1ST QUARTILE 13 %ILE 13 %ILE 25 %ILE
SUBTEST RESULTS CAP. & PUNCT.
NUMBER OF STUDENTS TESTED 4424 4344
3RD QUARTILE 58 %ILE 61 %ILE 75 %ILE
MEDIAN 25 %ILE 30 %ILE 50 %ILE
1ST QUARTILE 11 %ILE 11 %ILE 25 %ILE

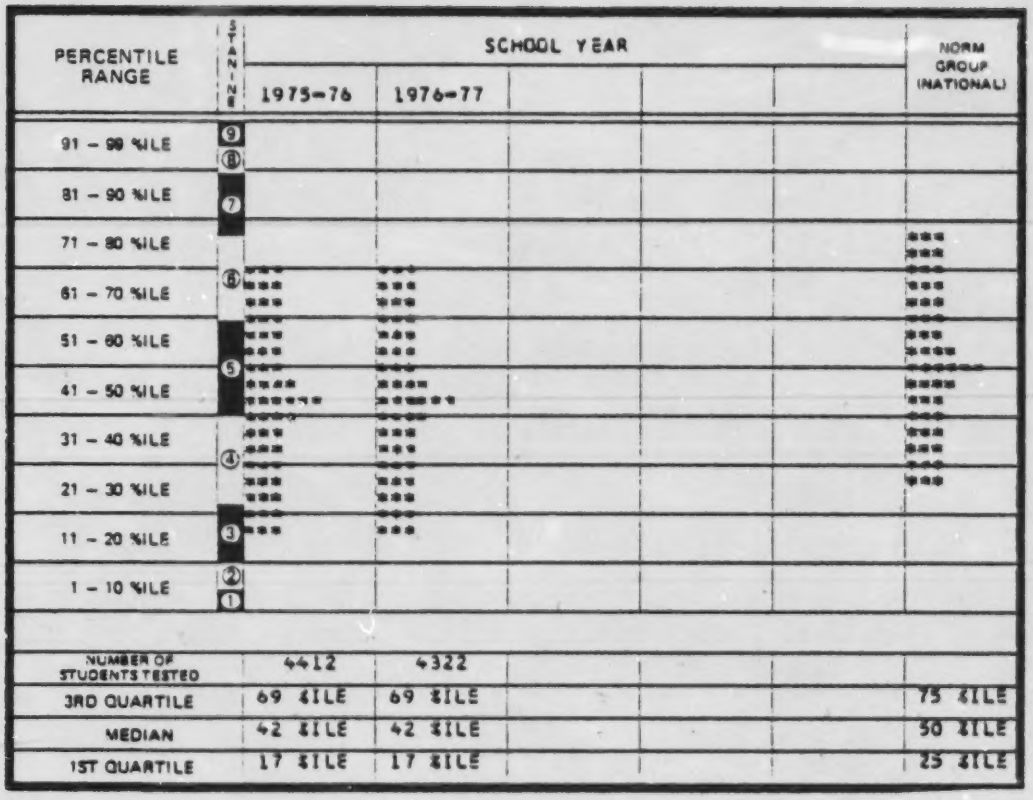
For each STEP test, the 3rd quartile point and the 1st quartile point are graphically indicated above by the upper and lower parts of the bar graph. The median point is indicated by the "arrow." For each test, the exact median and quartile points, as well as the number of students tested, are printed below the graph for the test.

Figure IV-34: 9th GRADE STEP II ACHIEVEMENT PROFILE MECHANICS OF WRITING - AISD



For each STEP test, the 3rd quartile point and the 1st quartile point are graphically indicated above by the upper and lower parts of the bar graph. The median point is indicated by the "arrow." For each test, the exact median and quartile points, as well as the number of students tested, are printed below the graph for the test.

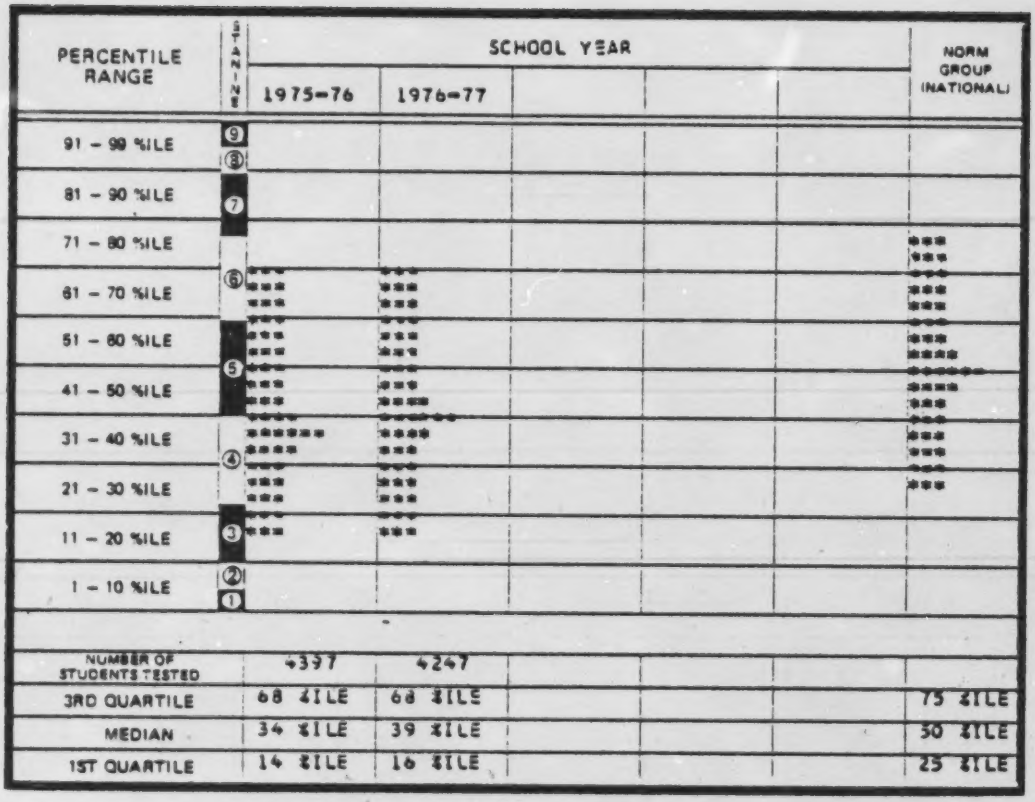
Figure IV-35: 9th GRADE STEP II ACHIEVEMENT PROFILE MATH COMPUTATION - AISD



PERCENTILE RANGE	STANINE	SCHOOL YEAR 1975-76	SCHOOL YEAR 1976-77				NORM GROUP (NATIONAL)
91 - 99 %ILE	9						
	8						
81 - 90 %ILE	7						
71 - 80 %ILE							
	6						
61 - 70 %ILE							
51 - 60 %ILE							
	5						
41 - 50 %ILE							
31 - 40 %ILE							
	4						
21 - 30 %ILE							
11 - 20 %ILE	3						
1 - 10 %ILE	2						
	1						
NUMBER OF STUDENTS TESTED		4412	4322				
3RD QUARTILE		69 %ILE	69 %ILE				75 %ILE
MEDIAN		42 %ILE	42 %ILE				50 %ILE
1ST QUARTILE		17 %ILE	17 %ILE				25 %ILE

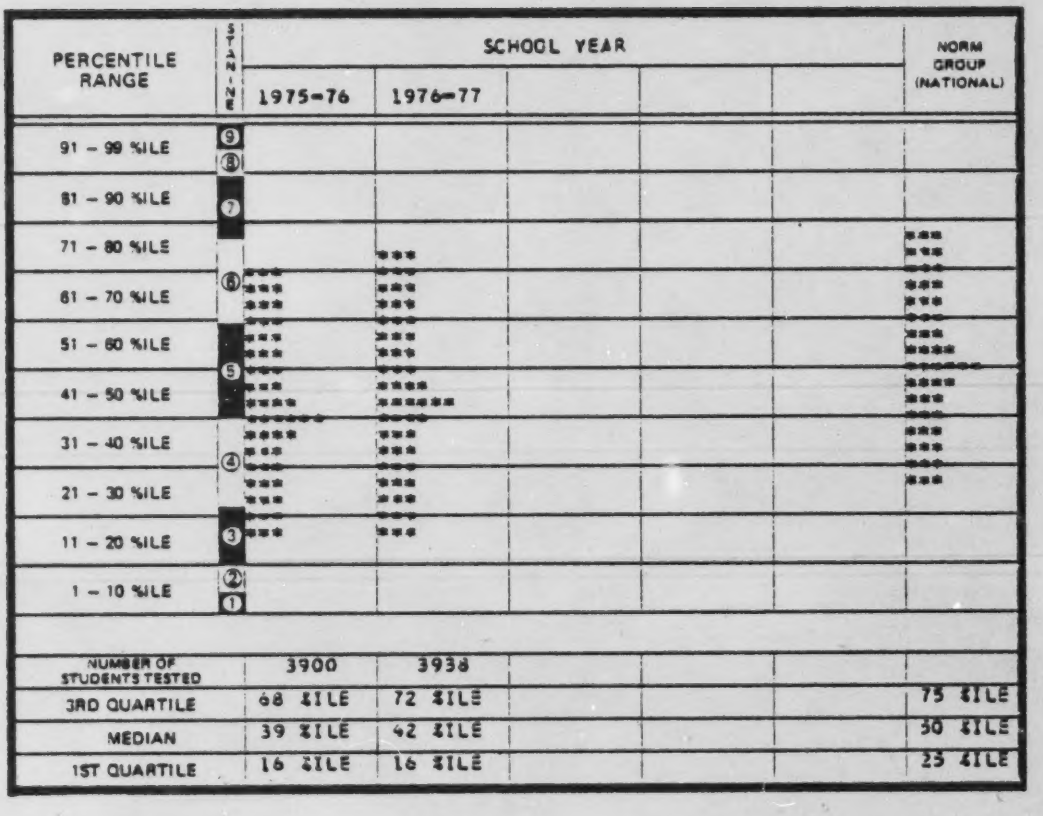
For each STEP test, the 3rd quartile point and the 1st quartile point are graphically indicated above by the upper and lower parts of the bar graph. The median point is indicated by the "arrow." For each test, the exact median and quartile points, as well as the number of students tested, are printed below the graph for the test.

Figure IV-36: 9th GRADE STEP II ACHIEVEMENT PROFILE MATH BASIC CONCEPTS - AISD



For each STEP test, the 3rd quartile point and the 1st quartile point are graphically indicated above by the upper and lower parts of the bar graph. The median point is indicated by the "arrow." For each test, the exact median and quartile points, as well as the number of students tested, are printed below the graph for the test.

Figure IV-37: 9th GRADE STEP II ACHIEVEMENT PROFILE SCIENCE - AISD



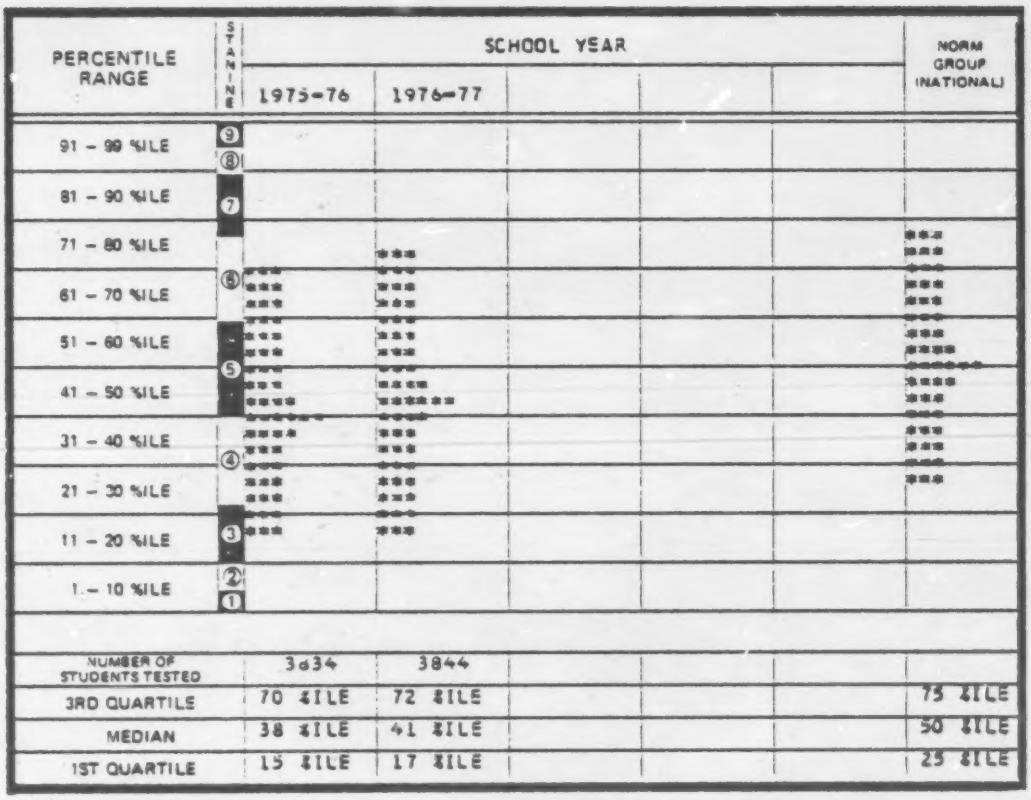
For each STEP test, the 3rd quartile point and the 1st quartile point are graphically indicated above by the upper and lower parts of the bar graph. The median point is indicated by the "arrow." For each test, the exact median and quartile points, as well as the number of students tested, are printed below the graph for the test.

Figure IV-38: 10th GRADE STEP II ACHIEVEMENT PROFILE READING - AISD

PERCENTILE RANGE	STANINE	SCHOOL YEAR 1975–76	SCHOOL YEAR 1976–77				NORM GROUP (NATIONAL)
91 – 99 %ILE	9						
	8						
81 – 90 %ILE	7						
71 – 80 %ILE							
	6						
61 – 70 %ILE							
51 – 60 %ILE							
	5						
41 – 50 %ILE							
31 – 40 %ILE							
	4						
21 – 30 %ILE							
11 – 20 %ILE	3						
1 – 10 %ILE	2						
	1						
NUMBER OF STUDENTS TESTED		3894	3940				
3RD QUARTILE		38 %ILE	43 %ILE				75 %ILE
MEDIAN		32 %ILE	34 %ILE				50 %ILE
1ST QUARTILE		11 %ILE	12 %ILE				25 %ILE

For each STEP test, the 3rd quartile point and the 1st quartile point are graphically indicated above by the upper and lower parts of the bar graph. The median point is indicated by the "arrow." For each test, the exact median and quartile points, as well as the number of students tested, are printed below the graph for the test.

Figure IV-39: 10th GRADE STEP II ACHIEVEMENT PROFILE ENGLISH EXPRESSION - AISD



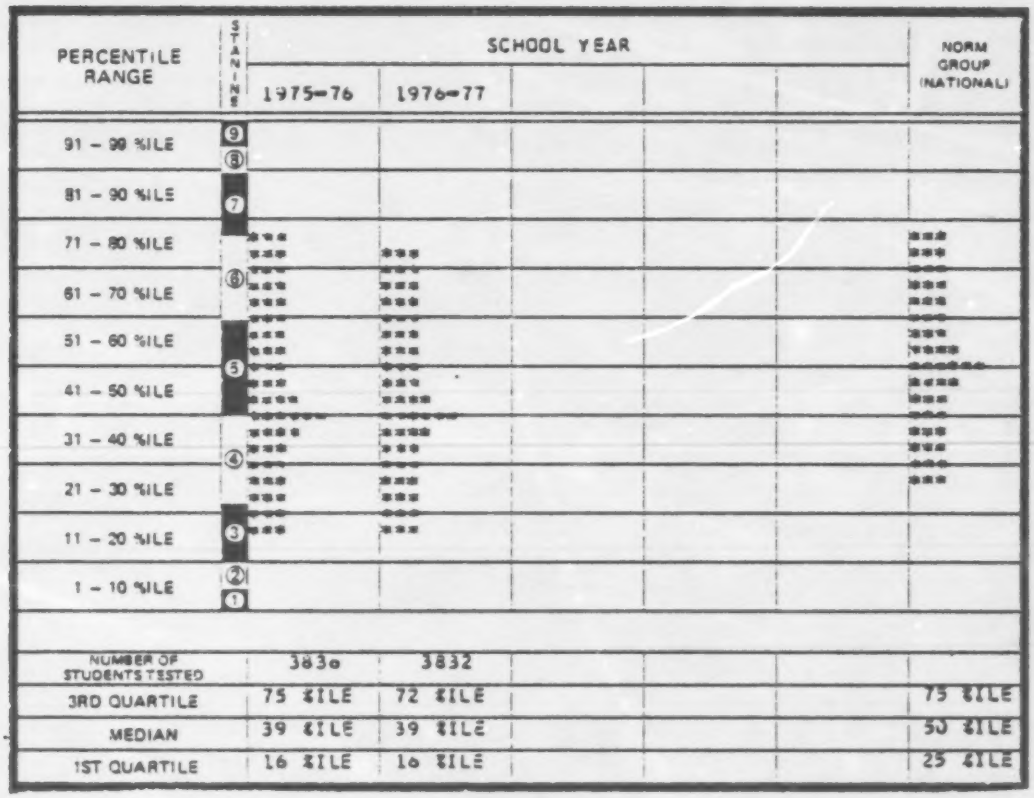
For each STEP test, the 3rd quartile point and the 1st quartile point are graphically indicated above by the upper and lower parts of the bar graph. The median point is indicated by the "arrow." For each test, the exact median and quartile points, as well as the number of students tested, are printed below the graph for the test.

Figure IV-40: 10th GRADE STEP II ACHIEVEMENT PROFILE SOCIAL STUDIES - AISD

PERCENTILE RANGE	STANINE	SCHOOL YEAR 1975-76	SCHOOL YEAR 1976-77				NORM GROUP (NATIONAL)
91 – 99 %ILE	9						
	8						
81 – 90 %ILE	7						
71 – 80 %ILE							
	6						
61 – 70 %ILE							
51 – 60 %ILE							
	5						
41 – 50 %ILE							
31 – 40 %ILE	4						
21 – 30 %ILE							
11 – 20 %ILE	3						
1 – 10 %ILE	2						
	1						
NUMBER OF STUDENTS TESTED		3889	3937				
3RD QUARTILE		59 %ILE	64 %ILE				75 %ILE
MEDIAN		29 %ILE	33 %ILE				50 %ILE
1ST QUARTILE		11 %ILE	13 %ILE				25 %ILE
SUBTEST RESULTS SPELLING							
NUMBER OF STUDENTS TESTED		3897	3942				
3RD QUARTILE		60 %ILE	65 %ILE				75 %ILE
MEDIAN		31 %ILE	36 %ILE				50 %ILE
1ST QUARTILE		14 %ILE	17 %ILE				25 %ILE
SUBTEST RESULTS CAP. & PUNCT.							
NUMBER OF STUDENTS TESTED		3893	3940				
3RD QUARTILE		56 %ILE	59 %ILE				75 %ILE
MEDIAN		26 %ILE	31 %ILE				50 %ILE
1ST QUARTILE		10 %ILE	13 %ILE				25 %ILE

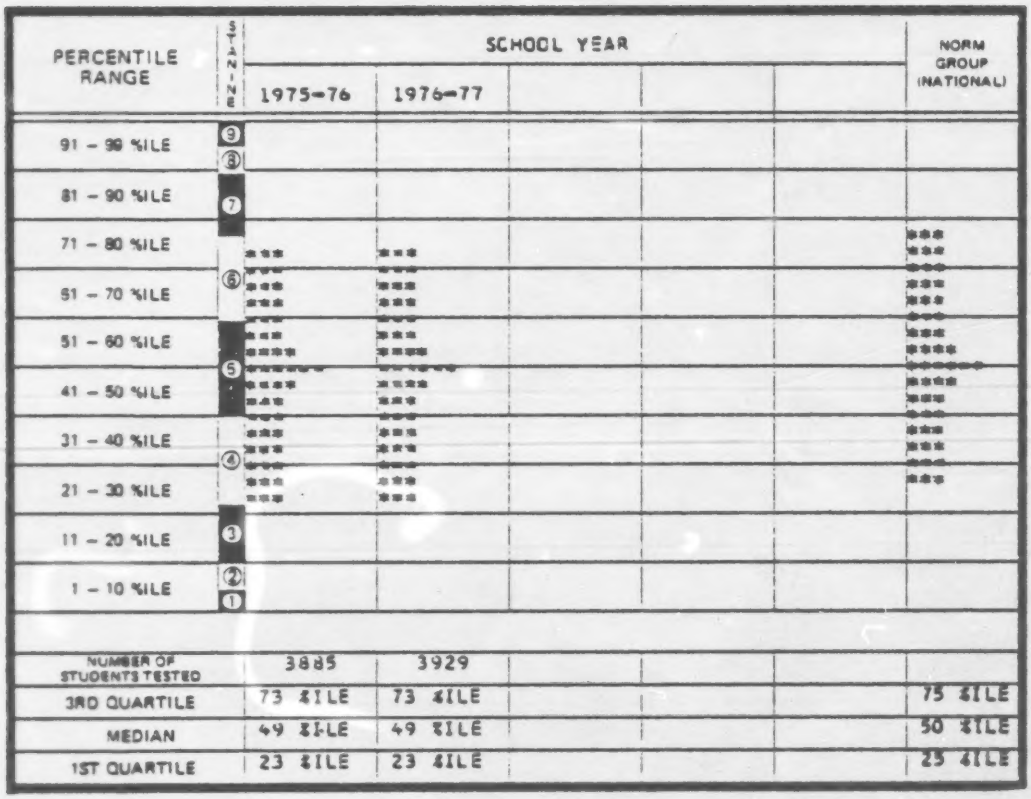
For each STEP test, the 3rd quartile point and the 1st quartile point are graphically indicated above by the upper and lower parts of the bar graph. The median point is indicated by the "arrow." For each test, the exact median and quartile points, as well as the number of students tested, are printed below the graph for the test.

Figure IV-41: 10th GRADE STEP II ACHIEVEMENT PROFILE MECHANICS OF WRITING - AISD



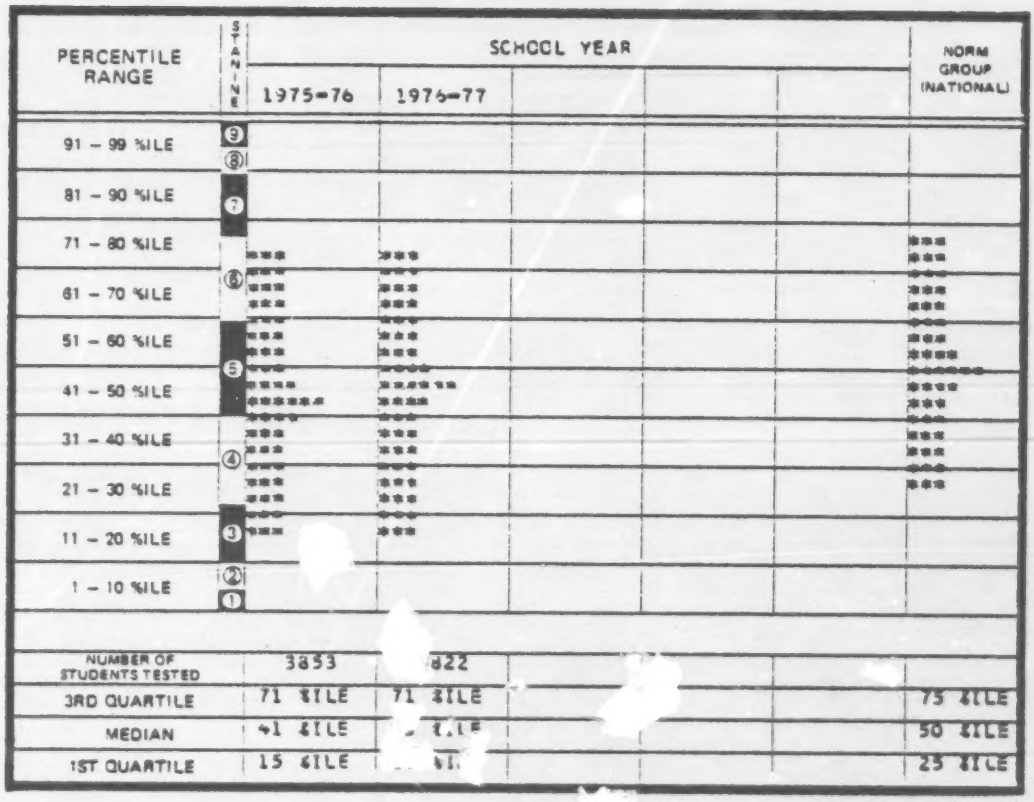
For each STEP test, the 3rd quartile point and the 1st quartile point are graphically indicated above by the upper and lower parts of the bar graph. The median point is indicated by the "arrow." For each test, the exact median and quartile points, as well as the number of students tested, are printed below the graph for the test.

Figure IV-42: 10th GRADE STEP II ACHIEVEMENT PROFILE MATH COMPUTATION - AISD



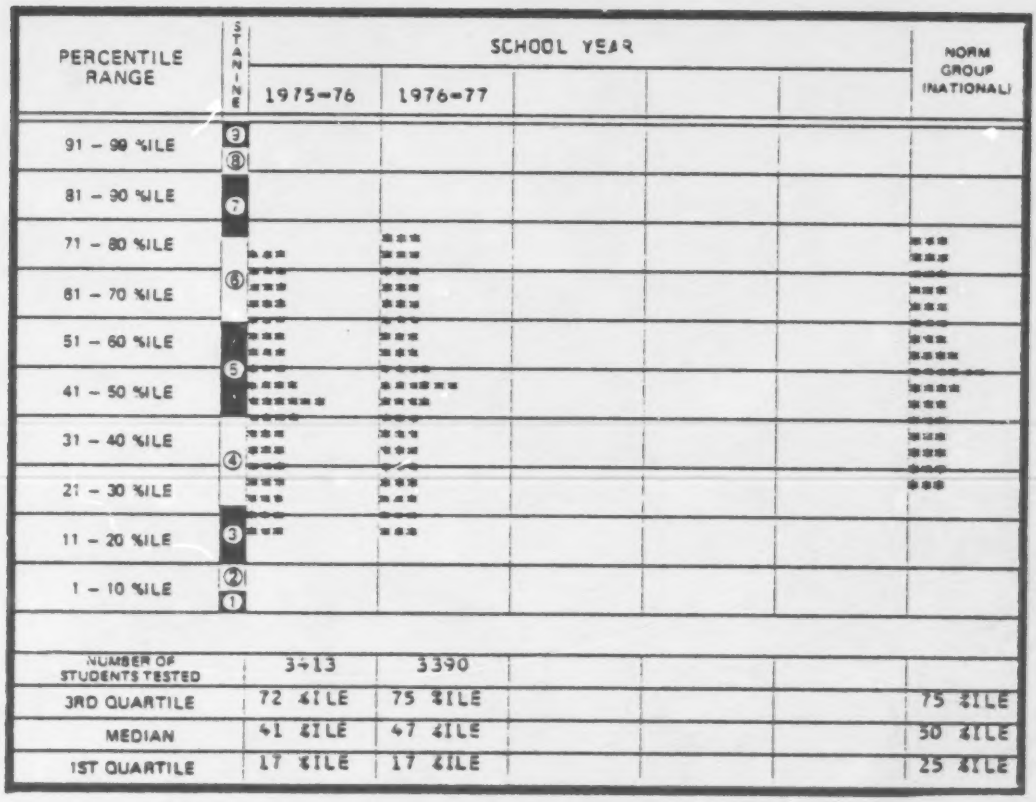
For each STEP test, the 3rd quartile point and the 1st quartile point are graphically indicated above by the upper and lower parts of the bar graph. The median point is indicated by the "arrow." For each test, the exact median and quartile points, as well as the number of students tested, are printed below the graph for the test.

Figure IV-43: 10th GRADE STEP II ACHIEVEMENT PROFILE MATH BASIC CONCEPTS - AISD



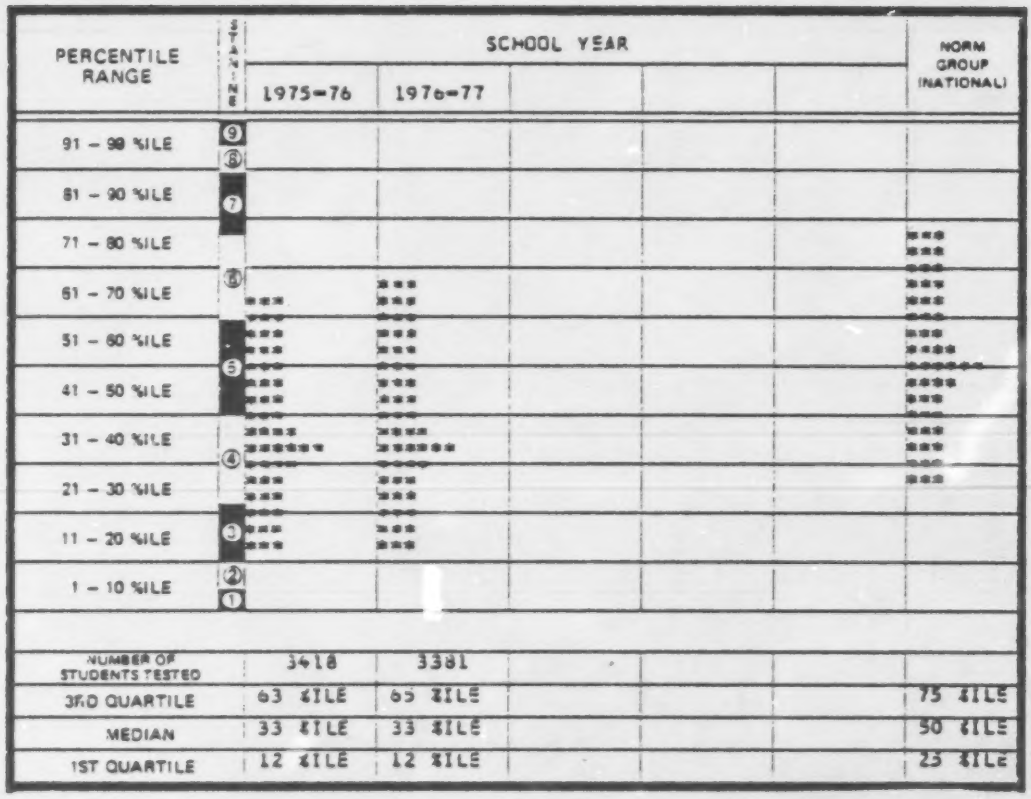
For each STEP test, the 3rd quartile point and the 1st quartile point are graphically indicated above by the upper and lower parts of the bar graph. The median point is indicated by the "arrow." For each test, the exact median and quartile points, as well as the number of students tested, are printed below the graph for the test.

Figure IV-44: 10th GRADE STEP II ACHIEVEMENT PROFILE SCIENCE - AISD



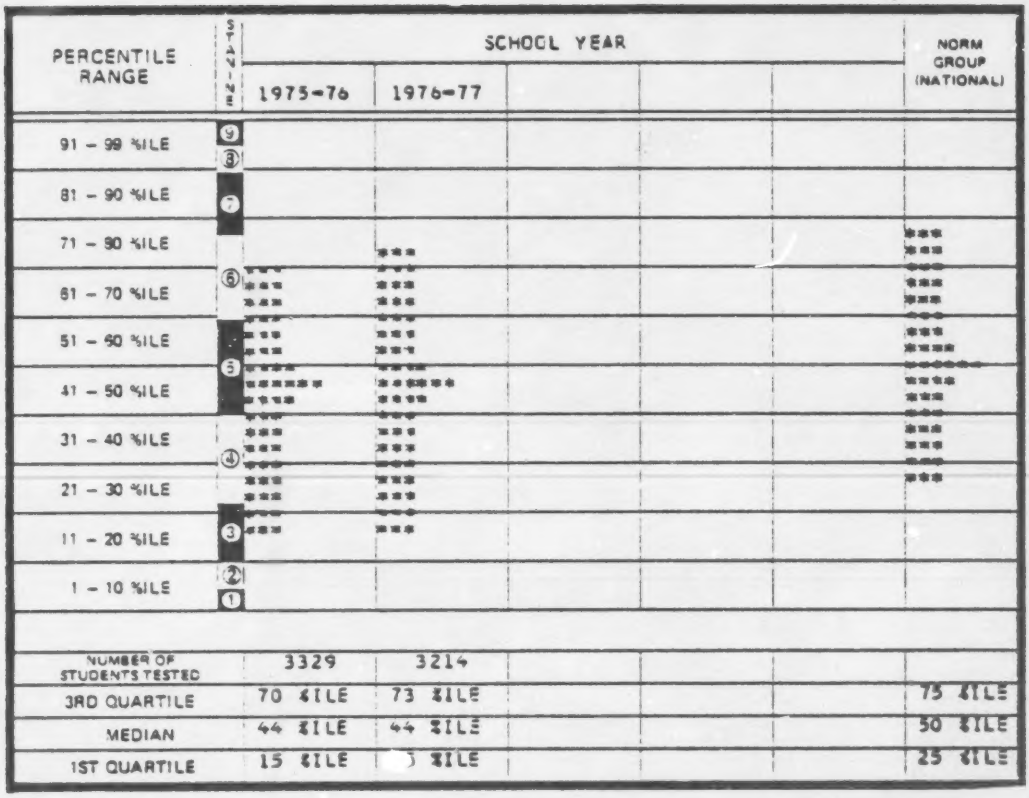
For each STEP test, the 3rd quartile point and the 1st quartile point are graphically indicated above by the upper and lower parts of the bar graph. The median point is indicated by the "arrow." For each test, the exact median and quartile points, as well as the number of students tested, are printed below the graph for the test.

Figure IV-45: 11th GRADE STEP II ACHIEVEMENT PROFILE READING - AISD



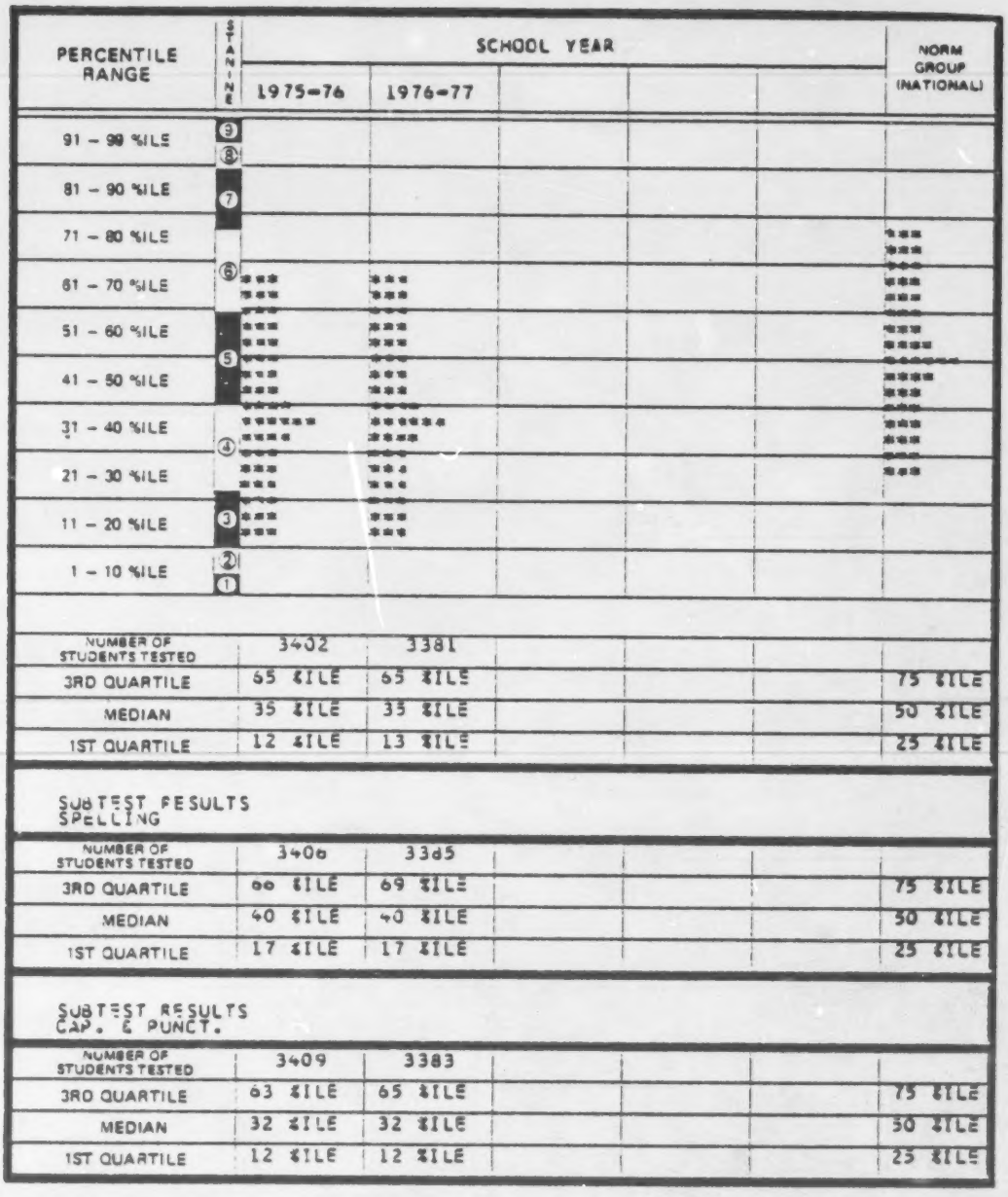
For each STEP test, the 3rd quartile point and the 1st quartile point are graphically indicated above by the upper and lower parts of the bar graph. The median point is indicated by the "arrow." For each test, the exact median and quartile points, as well as the number of students tested, are printed below the graph for the test.

Figure IV-46: 11th GRADE STEP II ACHIEVEMENT PROFILE ENGLISH EXPRESSION - AISD



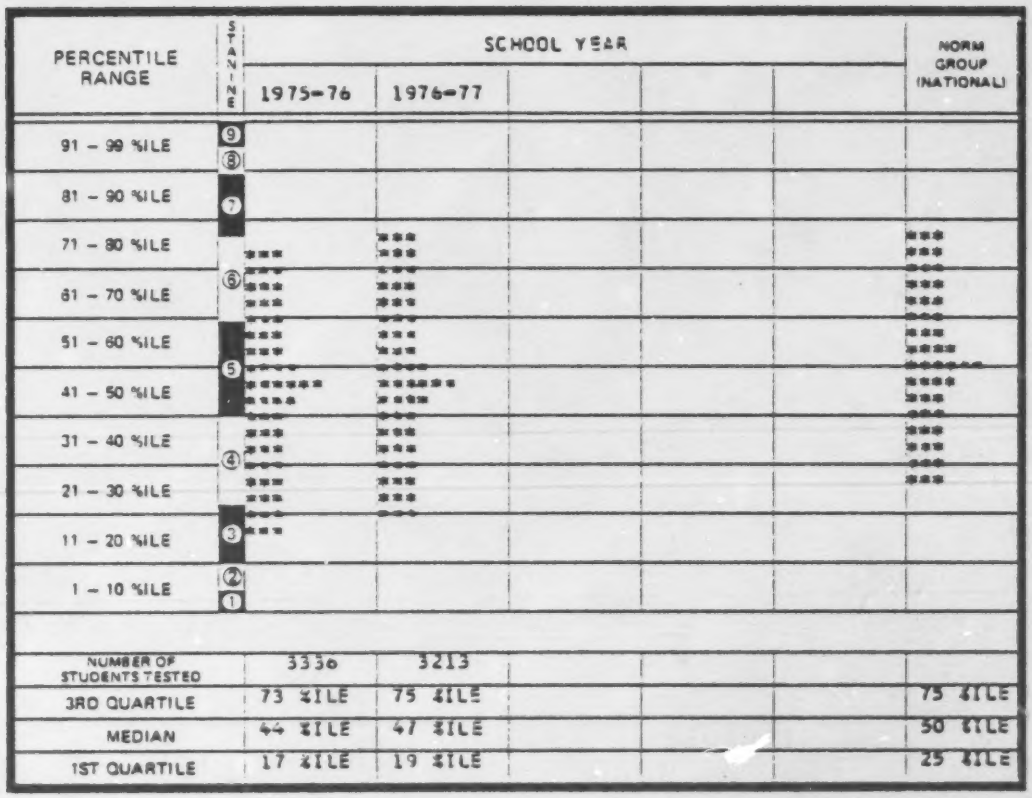
For each STEP test, the 3rd quartile point and the 1st quartile point are graphically indicated above by the upper and lower parts of the bar graph. The median point is indicated by the "arrow." For each test, the exact median and quartile points, as well as the number of students tested, are printed below the graph for the test.

Figure IV-47: 11th GRADE STEP II ACHIEVEMENT PROFILE SOCIAL STUDIES - AISD


PERCENTILE RANGE
STANINE
SCHOOL YEAR
1975-76
1976-77
NORM GROUP (NATIONAL)
91 - 99 %ILE
81 - 90 %ILE
71 - 80 %ILE
61 - 70 %ILE
51 - 60 %ILE
41 - 50 %ILE
31 - 40 %ILE
21 - 30 %ILE
11 - 20 %ILE
1 - 10 %ILE
NUMBER OF STUDENTS TESTED 3402 3381
3RD QUARTILE 65 %ILE 65 %ILE 75 %ILE
MEDIAN 35 %ILE 35 %ILE 50 %ILE
1ST QUARTILE 12 %ILE 13 %ILE 25 %ILE
SUBTEST RESULTS SPELLING
NUMBER OF STUDENTS TESTED 3406 3385
3RD QUARTILE 70 %ILE 69 %ILE 75 %ILE
MEDIAN 40 %ILE 40 %ILE 50 %ILE
1ST QUARTILE 17 %ILE 17 %ILE 25 %ILE
SUBTEST RESULTS CAP. & PUNCT.
NUMBER OF STUDENTS TESTED 3409 3383
3RD QUARTILE 63 %ILE 65 %ILE 75 %ILE
MEDIAN 32 %ILE 32 %ILE 50 %ILE
1ST QUARTILE 12 %ILE 12 %ILE 25 %ILE

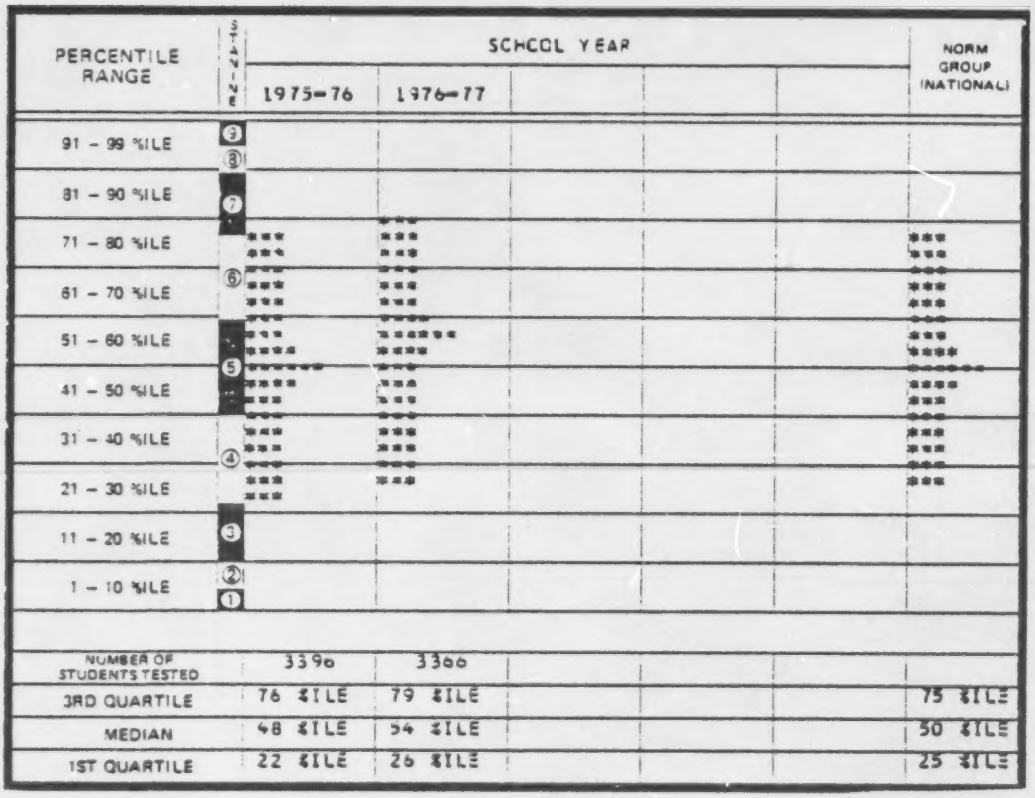
For each STEP test, the 3rd quartile point and the 1st quartile point are graphically indicated above by the upper and lower parts of the bar graph. The median point is indicated by the "arrow." For each test, the exact median and quartile points, as well as the number of students tested, are printed below the graph for the test.

Figure IV-48: 11th GRADE STEP II ACHIEVEMENT PROFILE MECHANICS OF WRITING - AISD



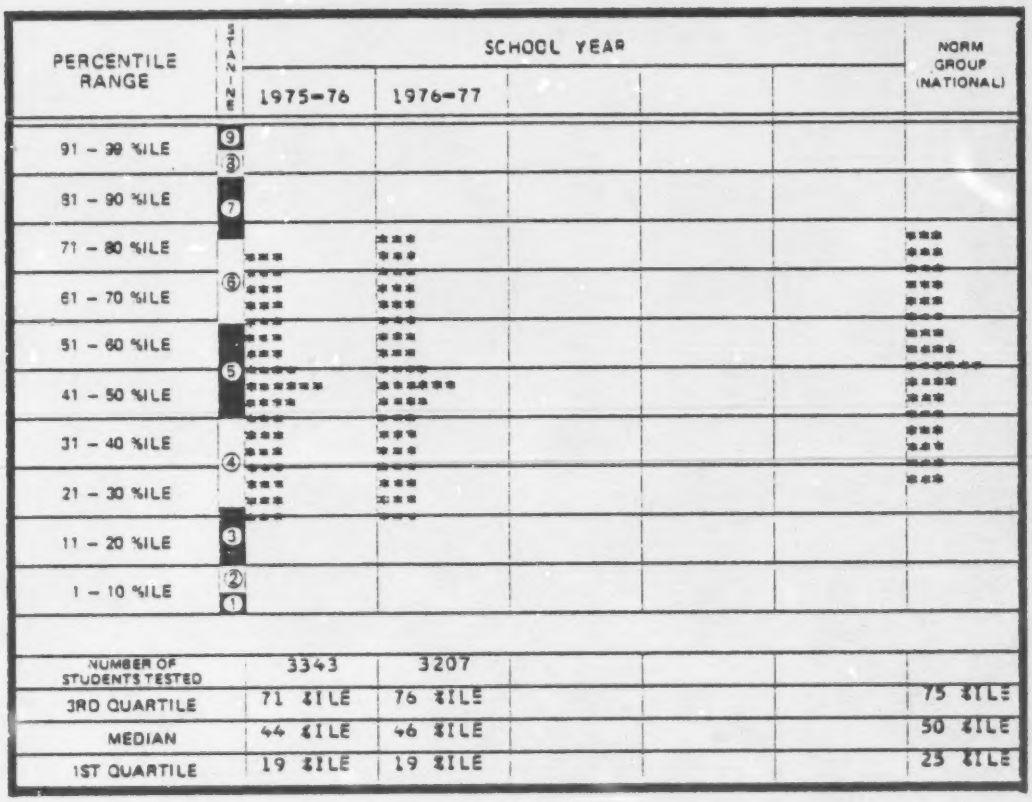
For each STEP test, the 3rd quartile point and the 1st quartile point are graphically indicated above by the upper and lower parts of the bar graph. The median point is indicated by the "arrow." For each test, the exact median and quartile points, as well as the number of students tested, are printed below the graph for the test.

Figure IV-49: 11th GRADE STEP II ACHIEVEMENT PROFILE MATH COMPUTATION - AISD



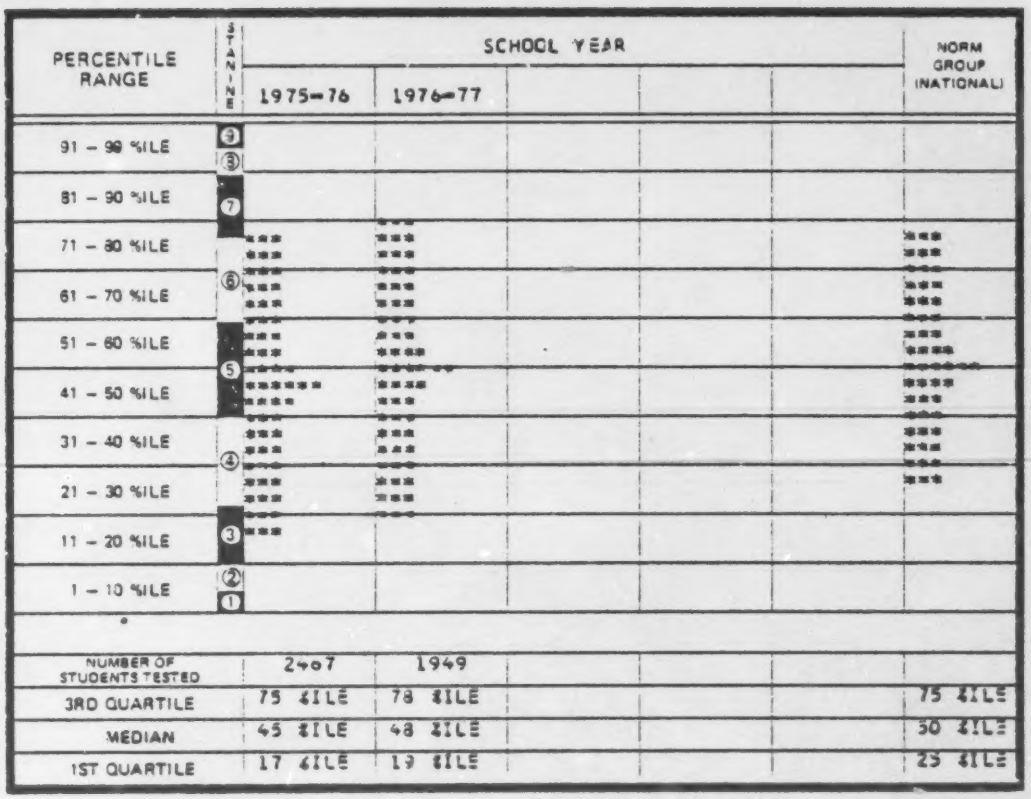
For each STEP test, the 3rd quartile point and the 1st quartile point are graphically indicated above by the upper and lower parts of the bar graph. The median point is indicated by the "arrow." For each test, the exact median and quartile points, as well as the number of students tested, are printed below the graph for the test.

Figure IV-50: 11th GRADE STEP II ACHIEVEMENT PROFILE MATH BASIC CONCEPTS - AISD



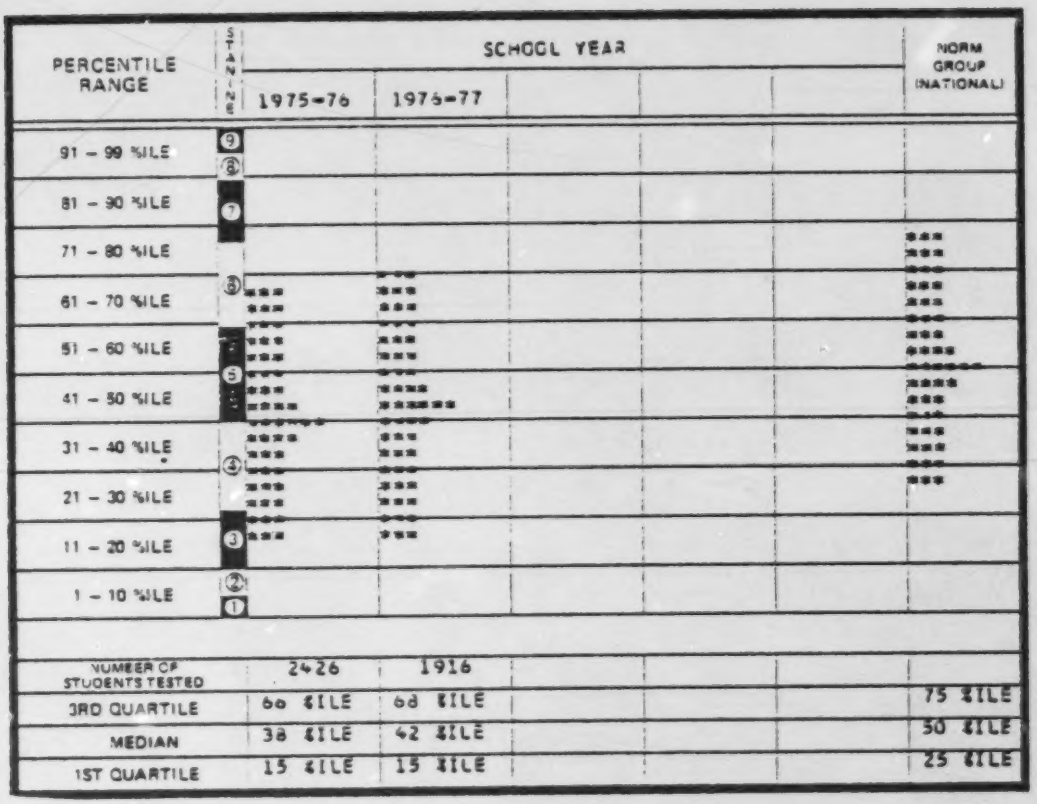
For each STEP test, the 3rd quartile point and the 1st quartile point are graphically indicated above by the upper and lower parts of the bar graph. The median point is indicated by the "arrow." For each test, the exact median and quartile points, as well as the number of students tested, are printed below the graph for the test.

Figure IV-51: 11th GRADE STEP II ACHIEVEMENT PROFILE SCIENCE - AISD



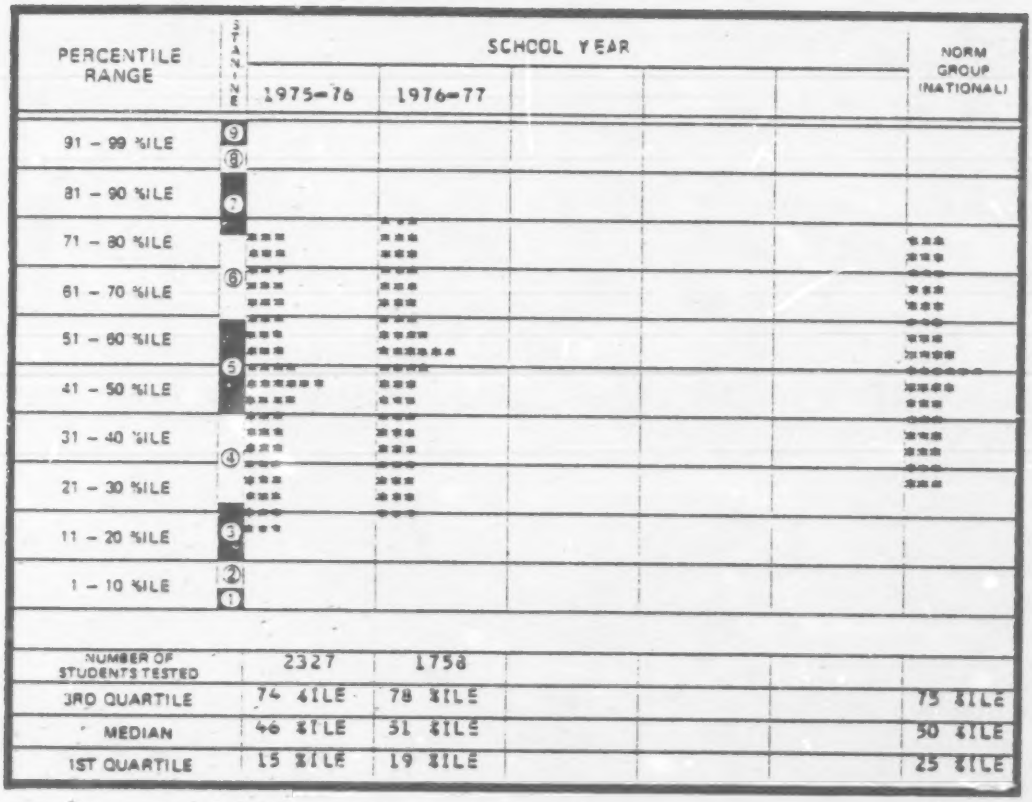
For each STEP test, the 3rd quartile point and the 1st quartile point are graphically indicated above by the upper and lower parts of the bar graph. The median point is indicated by the "arrow." For each test, the exact median and quartile points, as well as the number of students tested, are printed below the graph for the test.

Figure IV-52: 12th GRADE STEP II ACHIEVEMENT PROFILE READING - AISD



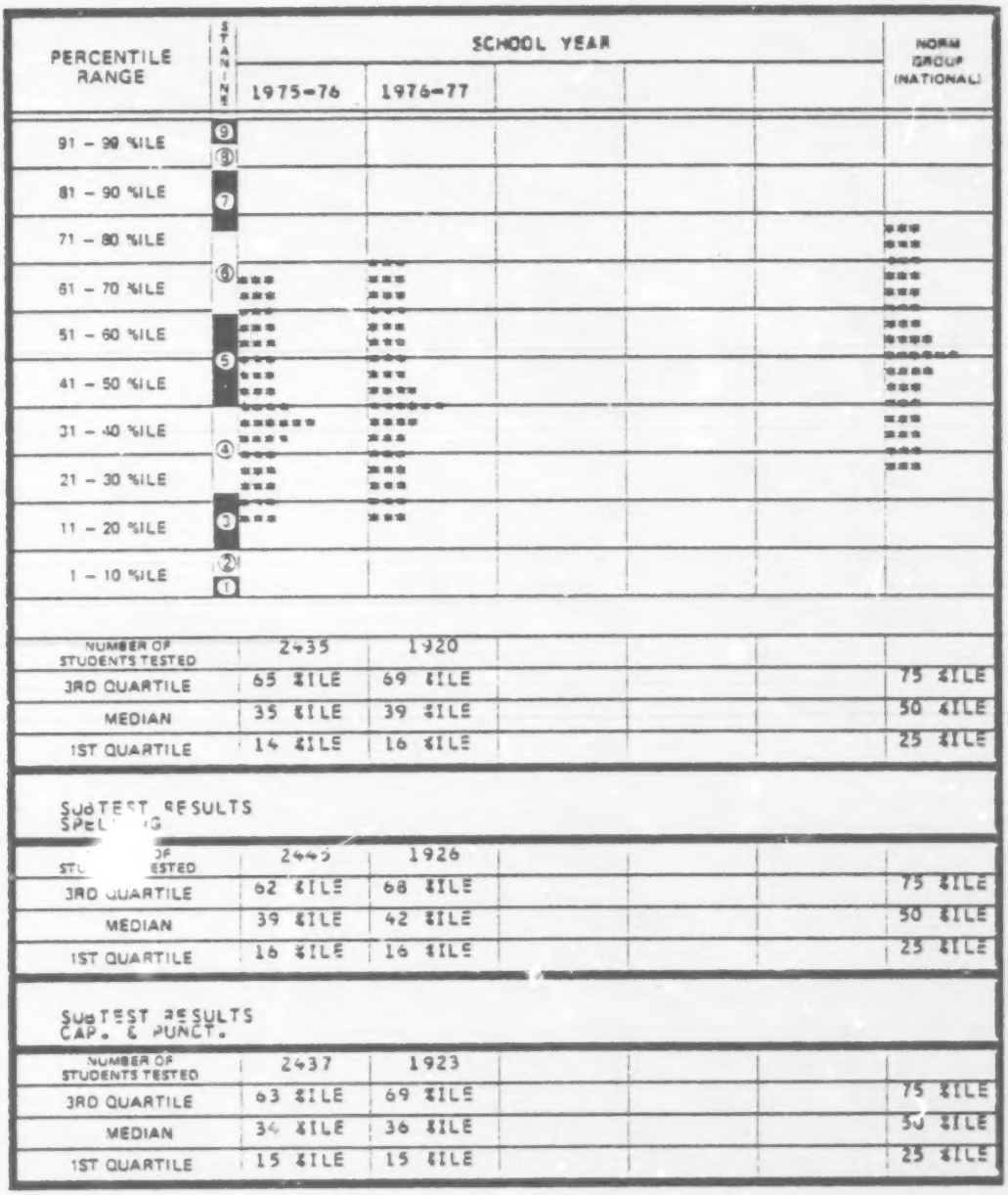
For each STEP test, the 3rd quartile point and the 1st quartile point are graphically indicated above by the upper and lower parts of the bar graph. The median point is indicated by the "arrow." For each test, the exact median and quartile points, as well as the number of students tested, are printed below the graph for the test.

Figure IV-53: 12th GRADE STEP II ACHIEVEMENT PROFILE ENGLISH EXPRESSION - AISD



For each STEP test, the 3rd quartile point and the 1st quartile point are graphically indicated above by the upper and lower parts of the bar graph. The median point is indicated by the "arrow." For each test, the exact median and quartile points, as well as the number of students tested, are printed below the graph for the test.

Figure IV-54: 12th GRADE STEP II ACHIEVEMENT PROFILE SOCIAL STUDIES - AISD


PERCENTILE RANGE
STANINE
SCHOOL YEAR
1975-76
1976-77
NORM GROUP (NATIONAL)
91 - 99 %ILE
81 - 90 %ILE
71 - 80 %ILE
61 - 70 %ILE
51 - 60 %ILE
41 - 50 %ILE
31 - 40 %ILE
21 - 30 %ILE
11 - 20 %ILE
1 - 10 %ILE
NUMBER OF STUDENTS TESTED 2435 1920
3RD QUARTILE 65 %ILE 69 %ILE 75 %ILE
MEDIAN 35 %ILE 39 %ILE 50 %ILE
1ST QUARTILE 14 %ILE 16 %ILE 25 %ILE
SUBTEST RESULTS SPELLING
NUMBER OF STUDENTS TESTED 2445 1926
3RD QUARTILE 62 %ILE 68 %ILE 75 %ILE
MEDIAN 39 %ILE 42 %ILE 50 %ILE
1ST QUARTILE 16 %ILE 16 %ILE 25 %ILE
SUBTEST RESULTS CAP. & PUNCT.
NUMBER OF STUDENTS TESTED 2437 1923
3RD QUARTILE 63 %ILE 69 %ILE 75 %ILE
MEDIAN 34 %ILE 36 %ILE 50 %ILE
1ST QUARTILE 15 %ILE 15 %ILE 25 %ILE

For each STEP test, the 3rd quartile point and the 1st quartile point are graphically indicated above by the upper and lower parts of the bar graph. The median point is indicated by the "arrow." For each test, the exact median and quartile points, as well as the number of students tested, are printed below the graph for the test.

Figure IV-55: 12th GRADE STEP II ACHIEVEMENT PROFILE MECHANICS OF WRITING - AISD

PERCENTILE RANGE	STANINE	SCHOOL YEAR 1975-76	SCHOOL YEAR 1976-77				NORM GROUP (NATIONAL)
91 – 99 %ILE	9 3						
81 – 90 %ILE	7						
71 – 80 %ILE							
61 – 70 %ILE	6						
51 – 60 %ILE	5						
41 – 50 %ILE							
31 – 40 %ILE	4						
21 – 30 %ILE							
11 – 20 %ILE	3						
1 – 10 %ILE	2 1						
NUMBER OF STUDENTS TESTED		2344	1763				
3RD QUARTILE		77 %ILE	78 %ILE				75 %ILE
MEDIAN		48 %ILE	51 %ILE				50 %ILE
1ST QUARTILE		18 %ILE	18 %ILE				25 %ILE

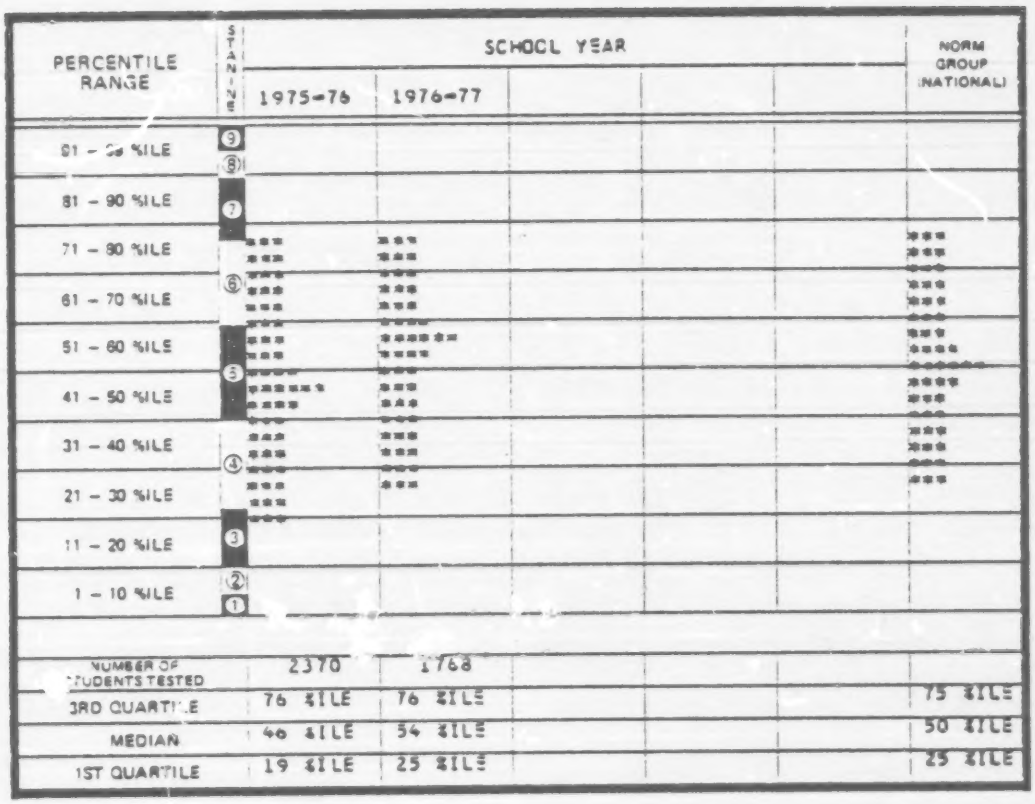
For each STEP test, the 3rd quartile point and the 1st quartile point are graphically indicated above by the upper and lower parts of the bar graph. The median point is indicated by the "arrow." For each test, the exact median and quartile points, as well as the number of students tested, are printed below the graph for the test.

Figure IV-56: 12th GRADE STEP II ACHIEVEMENT PROFILE MATH COMPUTATION - AISD

PERCENTILE RANGE	STANINE	SCHOOL YEAR 1975-76	SCHOOL YEAR 1976-77				NORM GROUP (NATIONAL)
91 - 99 %ILE	9						
	8						
81 - 90 %ILE	7						
71 - 80 %ILE		***	***				***
		***	***				***
61 - 70 %ILE	6	***	***				***
		***	***				***
51 - 60 %ILE		***	***				***
		*****	*****				****
	5	*****	***				-------
41 - 50 %ILE		***	***				****
		***	***				***
		***	***				***
31 - 40 %ILE		***	***				***
	4	***	***				***
		***	***				***
21 - 30 %ILE		***	***				***
		***					
11 - 20 %ILE	3						
1 - 10 %ILE	2						
	1						
NUMBER OF STUDENTS TESTED		2450	1930				
3RD QUARTILE		78 %ILE	80 %ILE				75 %ILE
MEDIAN		53 %ILE	57 %ILE				50 %ILE
1ST QUARTILE		23 %ILE	27 %ILE				25 %ILE

For each STEP test, the 3rd quartile point and the 1st quartile point are graphically indicated above by the upper and lower parts of the bar graph. The median point is indicated by the "arrow." For each test, the exact median and quartile points, as well as the number of students tested, are printed below the graph for the test.

Figure IV-57: 12th GRADE STEP II ACHIEVEMENT PROFILE MATH BASIC CONCEPTS - AISD



For each STEP test, the 3rd quartile point and the 1st quartile point are graphically indicated above by the upper and lower parts of the bar graph. The median point is indicated by the "arrow." For each test, the exact median and quartile points, as well as the number of students tested, are printed below the graph for the test.

Figure IV-58: 12th GRADE STEP II ACHIEVEMENT PROFILE SCIENCE - AISD

GRADE	1975-1976	1976-1977	"GAIN" or "LOSS"
9	33	38	+5
10	39	42	+3
11	41	47	+6
12	45	48	+3

Figure IV-59: STEP READING, MEDIAN PERCENTILE SCORES FOR 1975-76 AND 1976-77

GRADE	1975-1976	1976-1977	"GAIN" or "LOSS"
9	29	29	0
10	32	34	+2
11	33	33	0
12	38	42	+4

Figure IV-60: STEP ENGLISH EXPRESSION, MEDIAN PERCENTILE SCORES FOR 1975-76 AND 1976-77

GRADE	1975-1976	1976-1977	"GAIN" or "LOSS"
9	34	39	+5
10	41	45	+4
11	44	46	+2
12	46	54	+8

Figure IV-61: STEP SCIENCE, MEDIAN PERCENTILE SCORES FOR 1975-76 AND 1976-77

GRADE	1975-1976	1976-1977	"GAIN" or "LOSS"
9	32	34	+2
10	38	41	+3
11	44	44	0
12	46	51	+5

Figure IV-62: STEP SOCIAL STUDIES, MEDIAN PERCENTILE SCORES. FOR 1975-76 AND 1976-77

GRADE	1975-1976	1976-1977	"GAIN" or "LOSS"
9	36	36	0
10	31	36	+5
11	40	40	0
12	39	42	+3

Figure IV-63: STEP MECHANICS OF WRITING-SPELLING, MEDIAN PERCENTILE SCORES FOR 1975-76 AND 1976-77

GRADE	1975-1976	1976-1977	"GAIN" or "LOSS"
9	25	30	+5
10	26	31	+5
11	32	32	0
12	34	36	+2

Figure IV-64: STEP MECHANICS OF WRITING-CAPITALIZATION & PUNCTUATION, MEDIAN PERCENTILE SCORES FOR 1975-76 AND 1976-77

GRADE	1975-1976	1976-1977	"GAIN" or "LOSS"
9	30	32	+2
10	29	33	+4
11	35	35	0
12	35	39	+4

Figure IV-65: STEP MECHANICS OF WRITING - TOTAL, MEDIAN PERCENTILE SCORES FOR 1975-76 AND 1976-77

GRADE	1975-1976	1976-1977	"GAIN" or "LOSS"
9	31	35	+4
10	39	39	0
11	44	47	+3
12	48	51	+3

Figure IV-66: STEP MATH COMPUTATIONS, MEDIAN PERCENTILE SCORES FOR 1975-76 AND 1976-77

GRADE	1975-1976	1976-1977	"GAIN" or "LOSS"
9	42	42	0
10	49	49	0
11	48	54	+6
12	53	57	+4

Figure IV-67: STEP MATH CONCEPTS, MEDIAN PERCENTILE SCORES FOR 1975-76 AND 1976-77

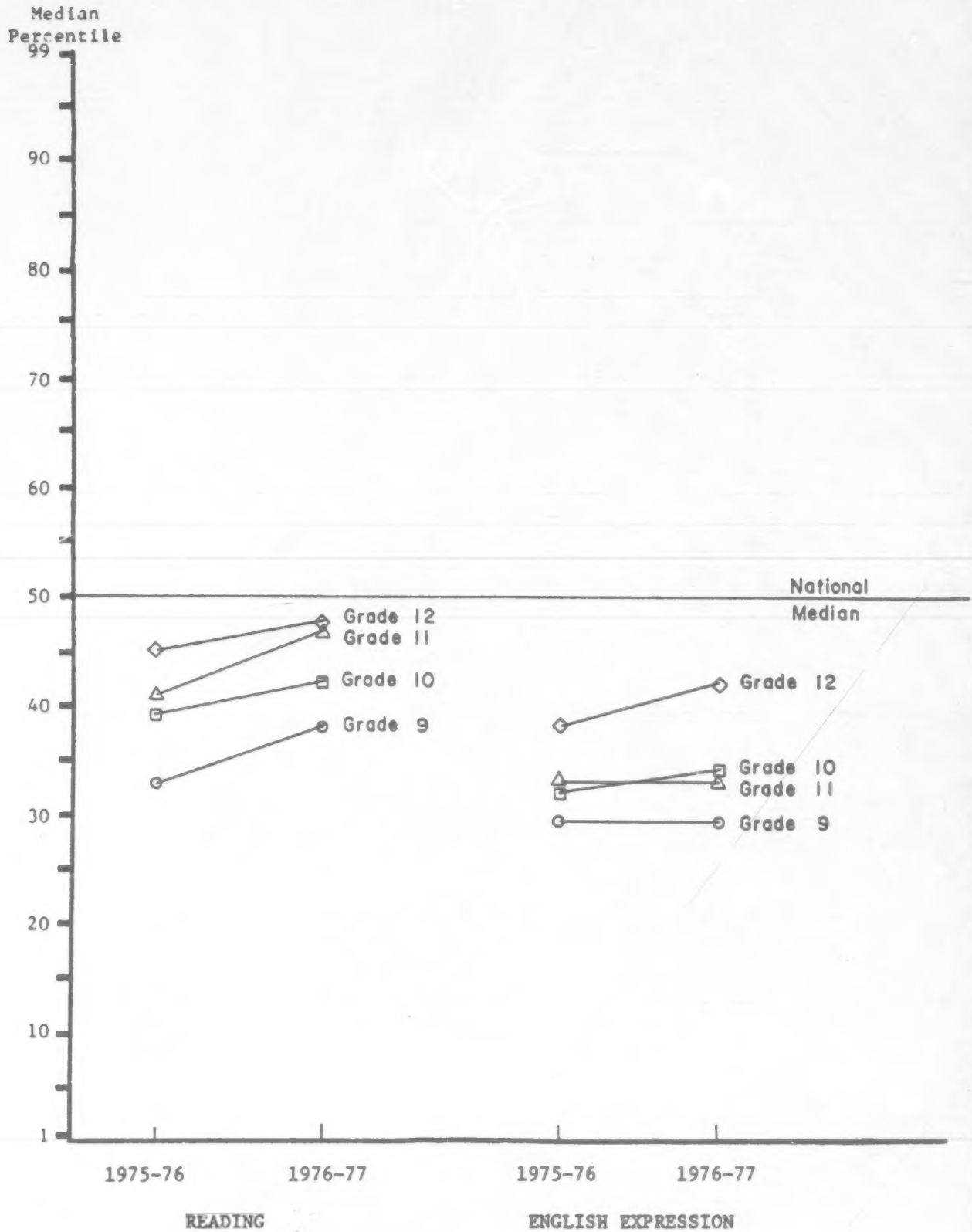


Figure IV-68: STEP READING AND STEP ENGLISH EXPRESSION, MEDIAN PERCENTILE SCORES FOR 1975-76 AND 1976-77

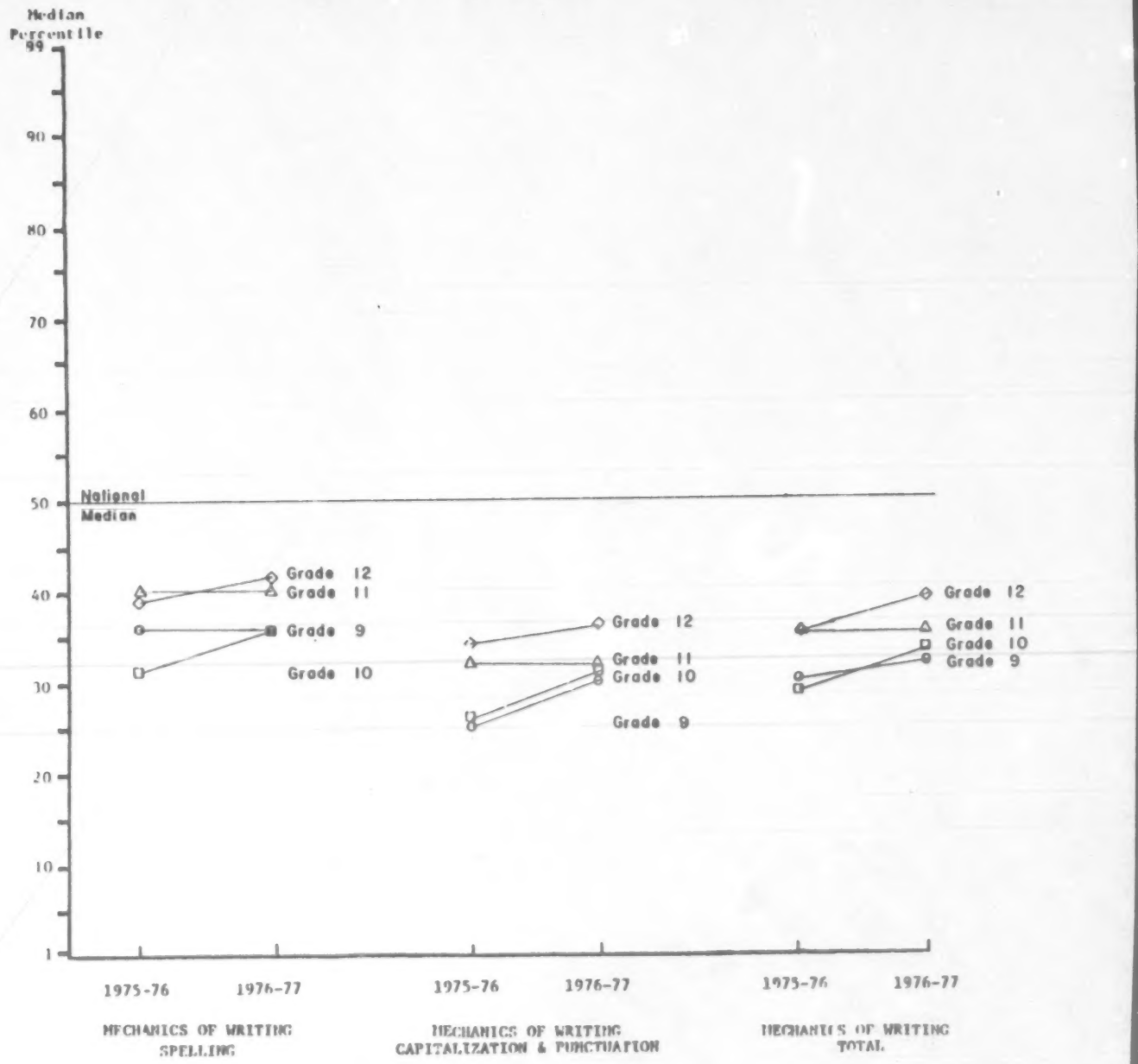


Figure IV-69: STEP MECHANICS OF WRITING, MEDIAN PERCENTILE SCORES, 1975-76 AND 1976-77

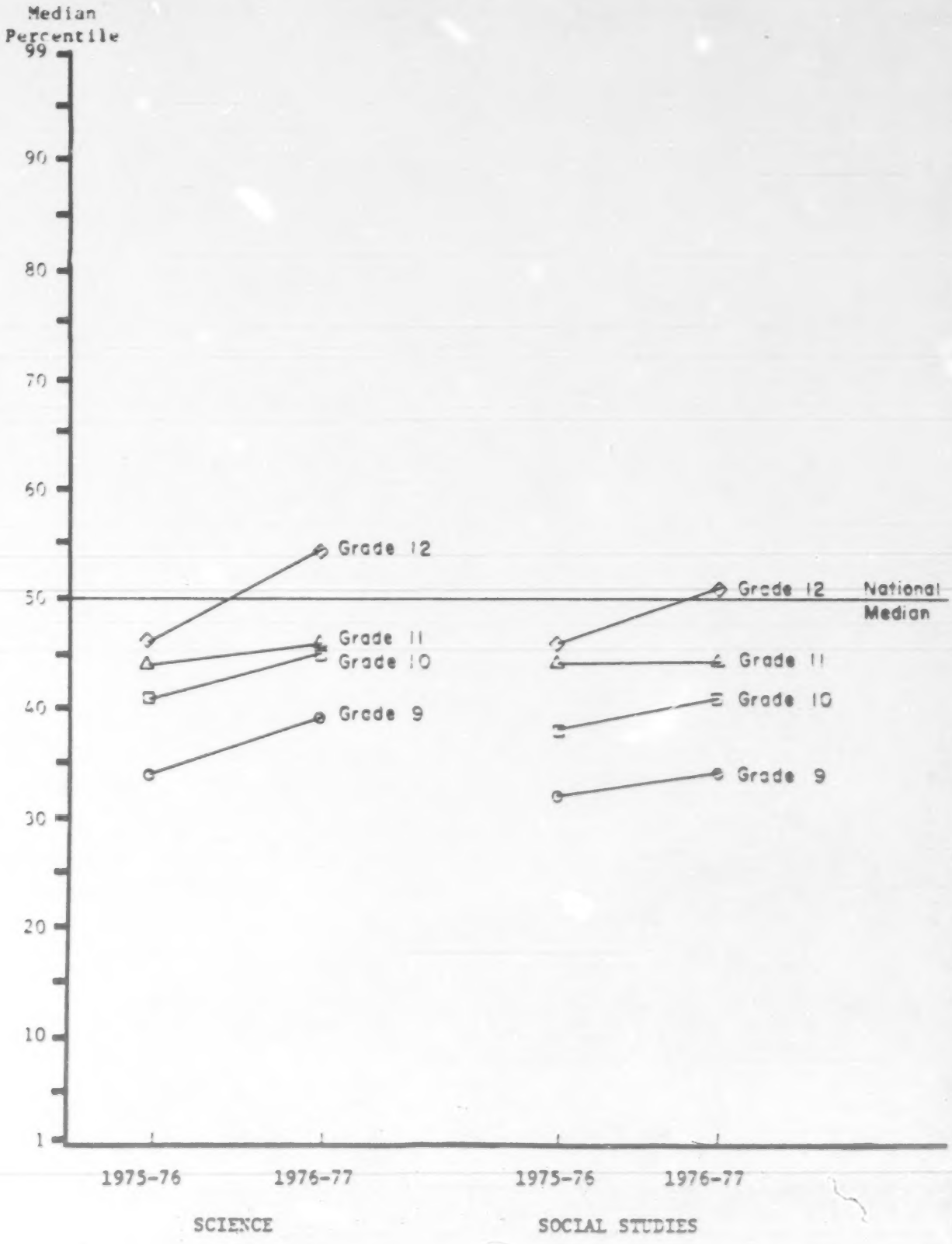


Figure IV-70: STEP SCIENCE AND SOCIAL STUDIES, MEDIAN PERCENTILE SCORES, FOR 1975-76 AND 1976-77

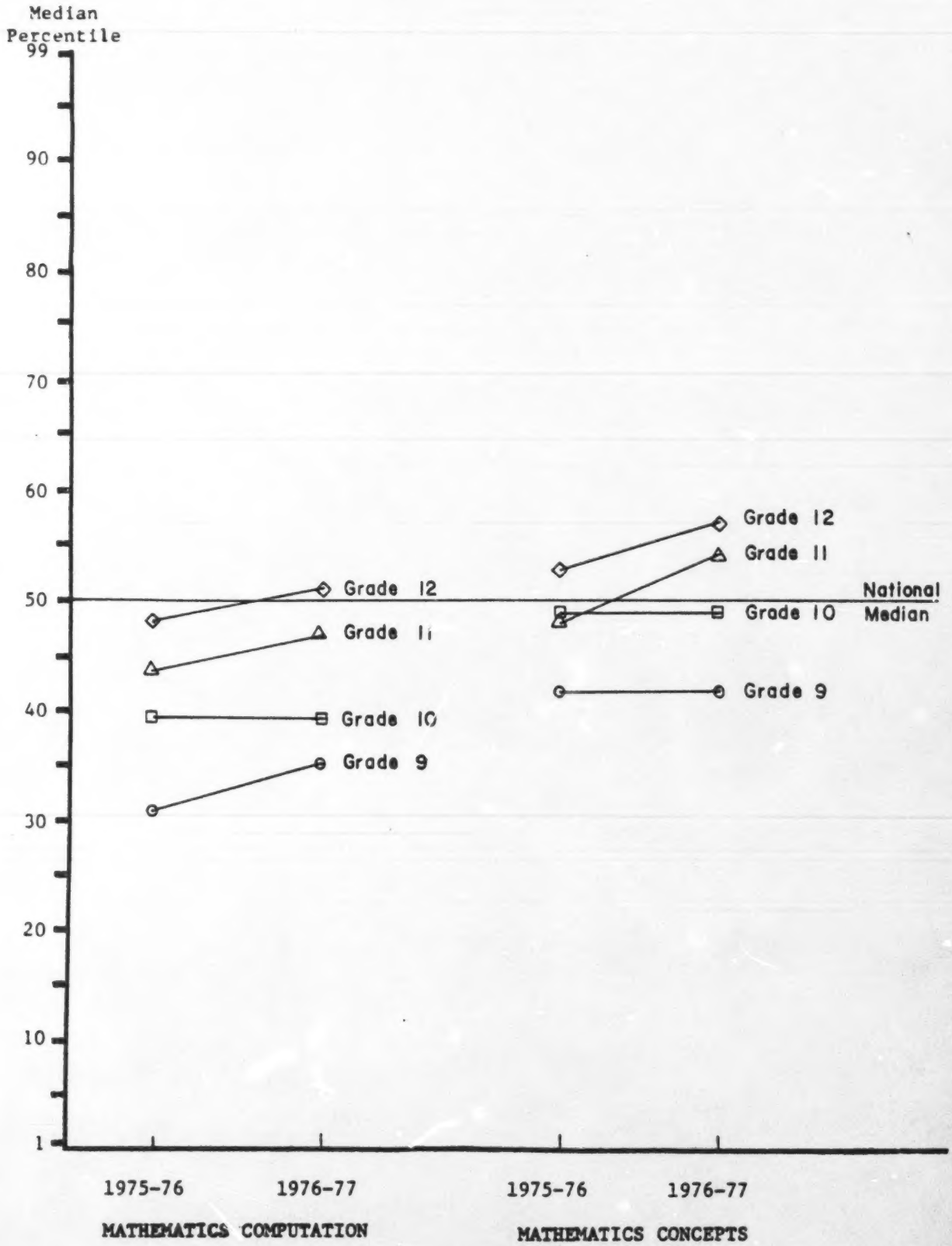


Figure IV-71: STEP MATHEMATICS COMPUTATION AND MATH CONCEPTS, MEDIAN PERCENTILE SCORES FOR 1975-76 AND 1976-77

2-2. In which general curriculum areas is student achievement the highest? In which is it the lowest?

ANSWER: Elementary and Junior High Schools (using the California Achievement Test): During the current year, achievement in reading was higher than math achievement in most grades. Also, achievement in reading comprehension is higher than reading vocabulary achievement in most grades. Achievement in math computation dominates math concepts and problems in grades 1-5; in grades 6-8, achievement in math concepts and problems is higher. Trends since 1973-74 suggest that a greater balance in achievement has been occuring between reading and math; at grades 6-8, a greater balance has been occuring between math computation and math concepts and problems. In the other areas, however, the discrepancies described above have been in existence for several years.

Senior High Schools (using the STEP). Achievement in Math Concepts is higher than achievement in any of the other STEP tests, for all grades. Achievement in English Expression and in Mechanics of Writing - Capitalization and Punctuation is lower than that of any of the other STEP tests, for all grades. The general ranking of achievement for the remaining STEP tests, from higher achievement to lower achievement, is: Science, Reading, Math Computation, Social Studies, and Mechanics of Writing - Spelling.

SUPPORTIVE DATA:

Elementary and Junior High Schools (Using the CAT). The differences between the districtwide median percentiles, for each of grades 1-8, were considered for each of the following pairs of tests: (1) CAT Reading and CAT Math, (2) CAT Reading Comprehension and CAT Reading Vocabulary, and (3) CAT Math Computation and CAT Math Concepts and Problems. Figures IV-72, 73, and 74 display the districtwide 1976-77 median percentile scores for CAT Reading and for CAT Math, for CAT Reading Vocabulary and for CAT Reading Comprehension, and for CAT Math Computation and for CAT Math Concepts and Problems respectively. Figures IV-75, 76, and 77 display the long range trends in relative achievement status since 1973-74 for these same CAT tests.

Senior High Schools (Using the STEP). Figure IV-78 displays the ranking of achievement for the different STEP tests. The ranking is based on the median, across all four high school grades, of the median percentile scores. Since the relative achievement in each of the four grade levels, 9-12, is identical for each of the STEP tests, it is not essential to provide separate rankings for each grade separately.

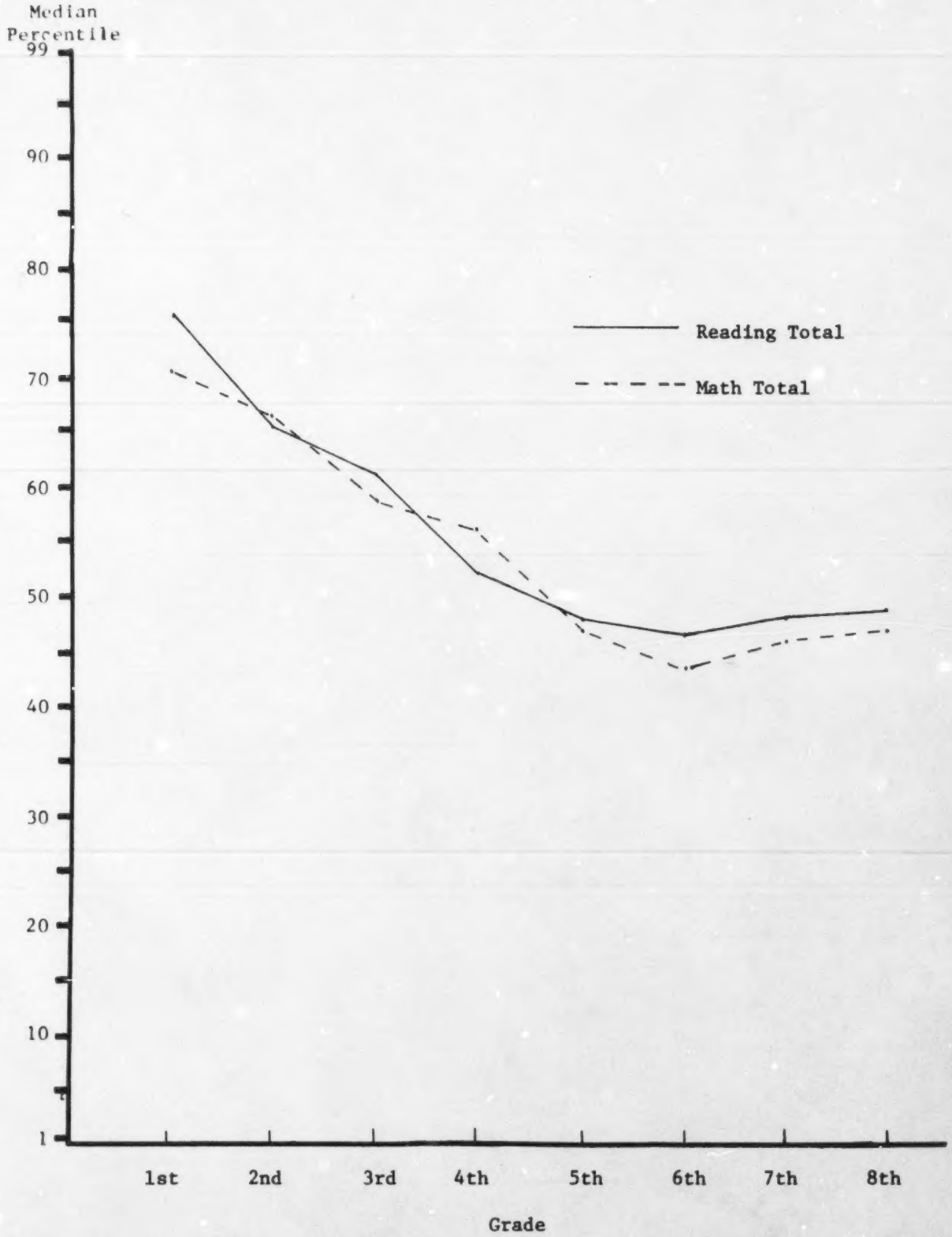


Figure IV-72: COMPARISONS BETWEEN CAT READING AND CAT MATH IN 1976-77

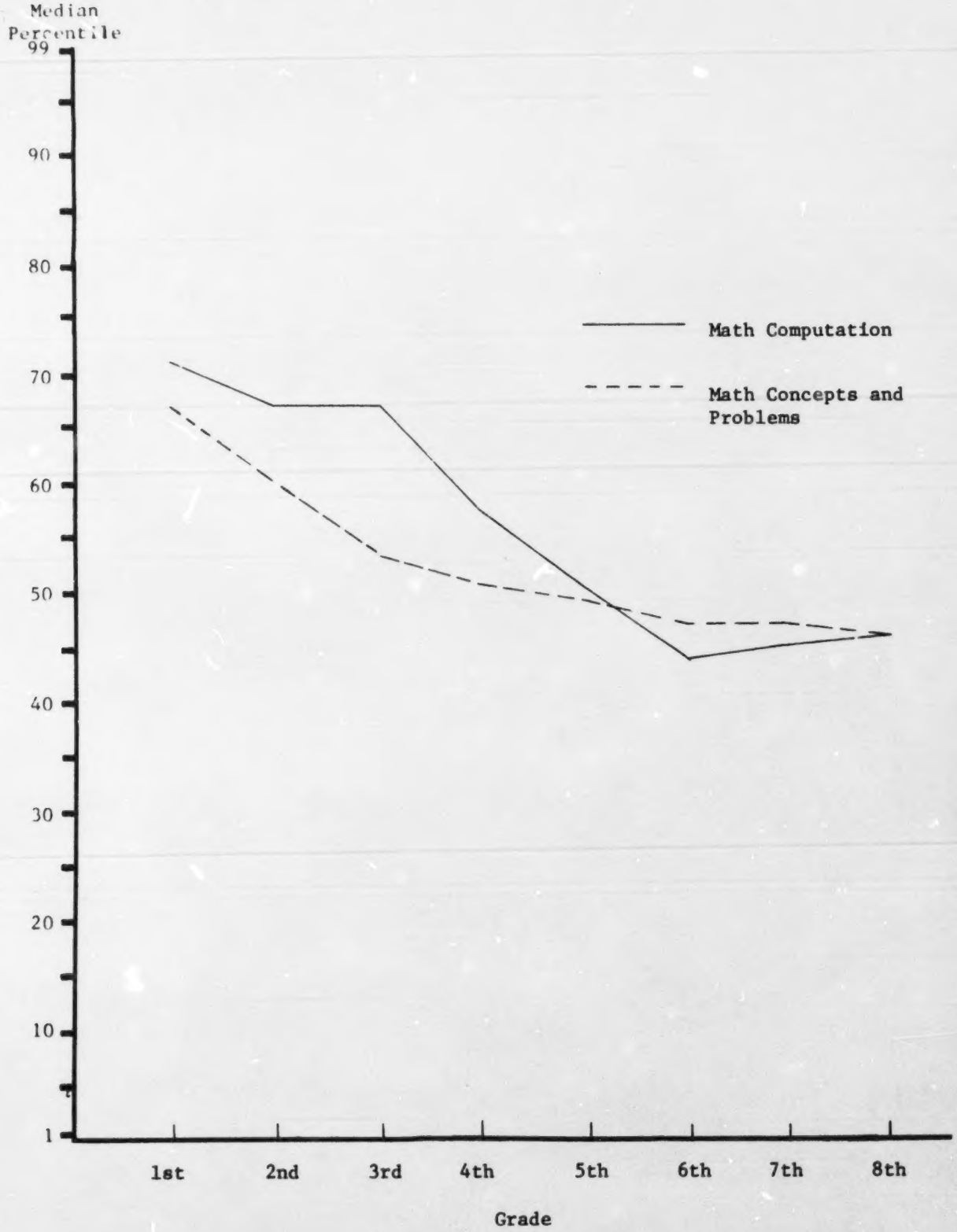


Figure IV-73: COMPARISONS BETWEEN CAT MATH COMPUTATION AND CAT MATH CONCEPTS AND PROBLEMS IN 1976-77

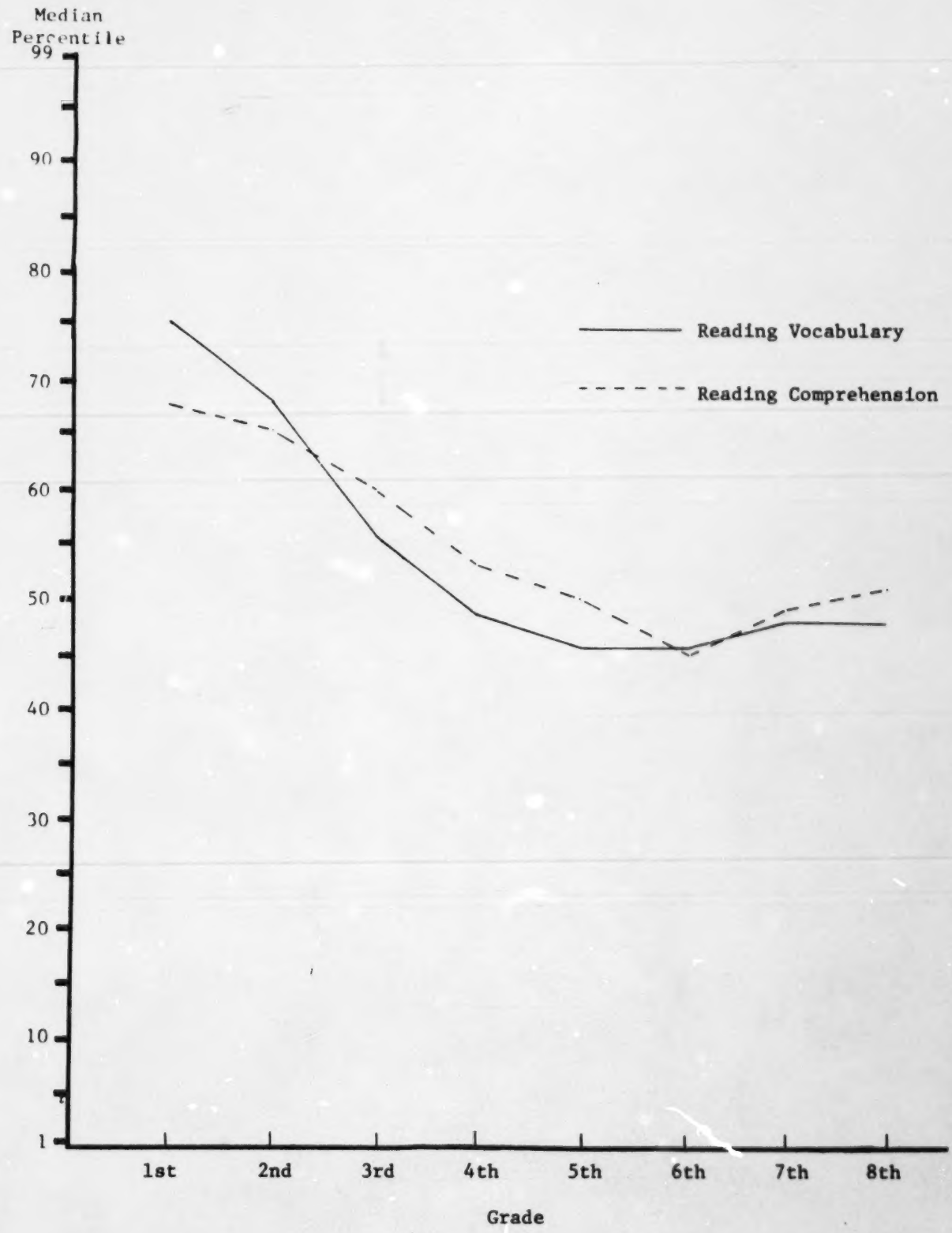


Figure IV-74: COMPARISONS BETWEEN CAT READING VOCABULARY AND CAT READING COMPREHENSION IN 1976-77

GRADE	Dominant Achievement Area[1]			
	1973-74	1974-75	1975-76	1976-77
1	---	---	Reading (5)	Reading (5)
2	Reading (11)	Reading (9)	Math (1)	Math (1)
3	---	---	Reading (5)	Reading (2)
4	Reading (1)	Math (1)	Math (4)	Math (1)
5	---	---	Math (3)	Reading (1)
6	Reading (9)	Reading (8)	Reading (4)	Reading (4)
7	Reading (7)	Reading (9)	Reading (4)	Reading (2)
8	Reading (6)	Reading (5)	Reading (5)	Reading (2)

[1]For each entry, the CAT test named has higher achievement, for that year and grade, than did the other CAT test. The number in parentheses is the number of %ile points by which the median of this test exceeds the other test's median.

Figure IV-75: DOMINANCE IN CAT READING AND CAT MATH SINCE 1973-74

GRADE	Dominant Achievement Area[1]			
	1973-74	1974-75	1975-76	1976-77
1	---	---	Vocabulary (5)	Vocabulary (7)
2	*	Vocabulary (1)	*	Vocabulary (3)
3	---	---	Comprehension(4)	Comprehension(4)
4	Vocabulary (4)	Comprehension(2)	Comprehension(2)	Comprehension(4)
5	---	---	*	Comprehension(4)
6	Vocabulary (1)	Comprehension(1)	Comprehension(4)	Vocabulary (1)
7	Vocabulary (3)	Vocabulary (1)	Vocabulary (3)	Comprehension(1)
8	Comprehension(2)	Vocabulary (2)	Comprehension(3)	Comprehension(3)

[1]For each entry, the CAT test named has higher achievement for that year and grade than did the other CAT test. The number in parentheses is the number of percentile points by which the median of this test exceeds the other test's median.

Figure IV-76: DOMINANCE IN CAT READING VOCABULARY AND CAT READING COMPREHENSION SINCE 1973-74

GRADE	Dominant Achievement Area[1]			
	1973-74	1974-75	1975-76	1976-77
1	---	---	Computation (1)	Computation (4)
2	Computation (2)	Computation (1)	Computation (5)	Computation (7)
3	---	---	Computation (9)	Computation (14)
4	Computation (2)	Computation (7)	Computation (8)	Computation (7)
5	---	---	Cncpts.&Probs.(2)	Computation (1)
6	Cncpts.&Probs.(6)	Cncpts.&Probs.(6)	Cncpts.&Probs.(7)	Cncpts.&Probs.(3)
7	Cncpts.&Probs.(9)	Cncpts.&Probs.(9)	Cncpts.&Probs(10)	Cncpts.&Probs.(2)
8	Cncpts.&Probs.(6)	Cncpts.&Probs.(7)	Cncpts.&Probs.(7)	*

[1]For each entry, the CAT test naned has higher achievement for that year and grade than did the other CAT test. The number in parentheses is the number of percentile points by which the median of this test exceeds the other test's median.

Figure IV-77: DOMINANCE IN CAT MATH COMPUTATION AND CAT MATH CONCEPTS AND PROBLEMS SINCE 1973-74

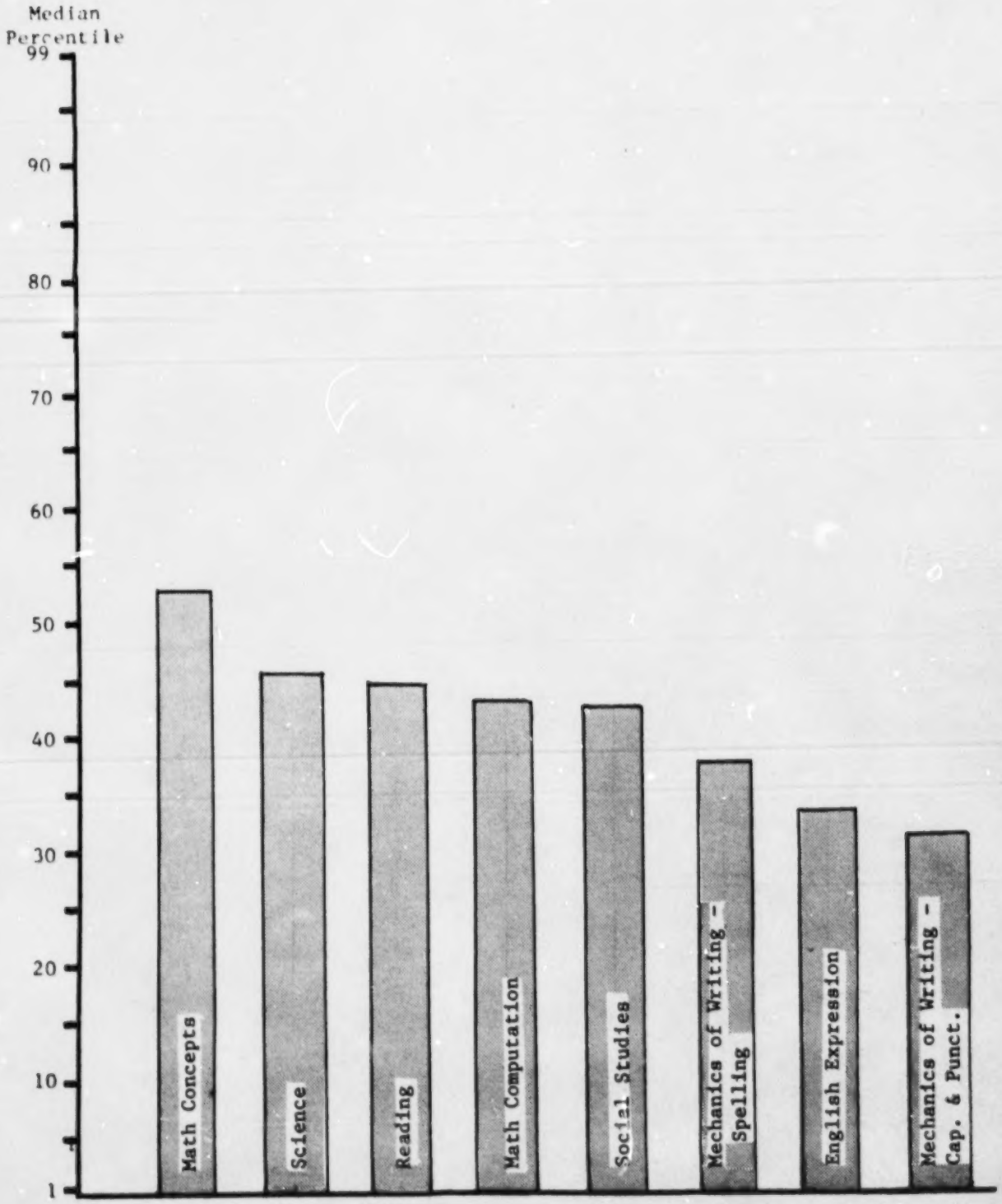


Figure IV-78: DISTRICTWIDE MEDIAN PERCENTILE SCORES FOR STEP TESTS COLLAPSED ACROSS ALL GRADES

2-3. How does Austin achievement in the general curriculum areas compare with nationwide achievement in these areas?

ANSWER: Elementary and Jr. High Schools (using the CAT). In grades 1-3, and for the most part in grade 4, districtwide achievement is above the national norms. In grades 5 - 8, districtwide achievement is equal to the national norms (grade 5, in Reading Comprehension and in Math Computation) or is below the national norm.

Achievement is highest at grade 1, in both reading and in math. Achievement in each succeeding grade is lower, until grade 6 which has the lowest achievement. Achievement then begins to rise with each succeeding Junior High grade.

Even in those instances where Austin achievement is generally above the national norm, there are many Austin students who are scoring below the national norm. Similarly, in those instances where Austin achievement is generally below the national norms, there are many Austin students who are scoring above the national norms.

High Schools (using the STEP). Austin achievement is above the national norms only for a few tests at the upper grades (Math Concepts at grades 11 and 12; and Math Computation, Social Studies, and Science at grade 12). For all other tests and grades, Austin achievement is below the national norms.

Even in those instances where Austin achievement is generally above the national norms, there are many Austin students who are scoring below the national norms. Similarly, even in those instances where Austin achievement is generally below the national norms, there are many Austin students who are scoring above the national norms.

Achievement is lowest at grade 9 and rises at each succeeding higher grade.

SUPPORTIVE DATA:

The districtwide achievement results for grades 1 - 8 (using the CAT) have already been provided in figures IV-9 through IV-24. The districtwide achievement results for grades 9 - 12 (using the STEP) have already been provided in figures IV-31 through IV-58. Figure IV-79 and IV-80 display the relationships between the achievement at each of grades 1 through 8 for CAT Reading and for CAT Math, respectively. Figure IV-81 displays the relationships between the different STEP tests for grades 9 through 12.

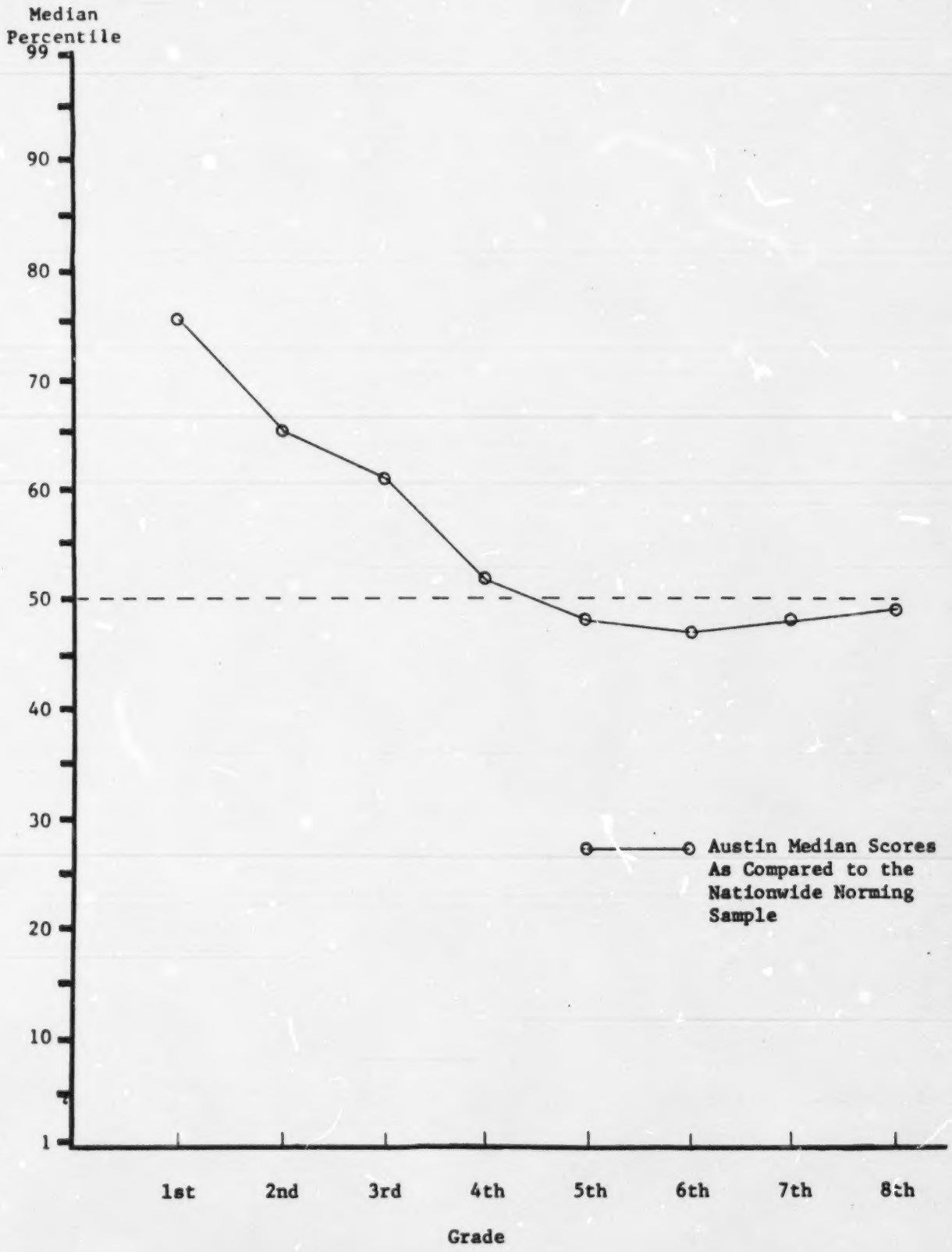


Figure IV-79: COMPARISON OF DISTRICTWIDE CAT READING ACHIEVEMENT TO THE NATIONAL NORMS

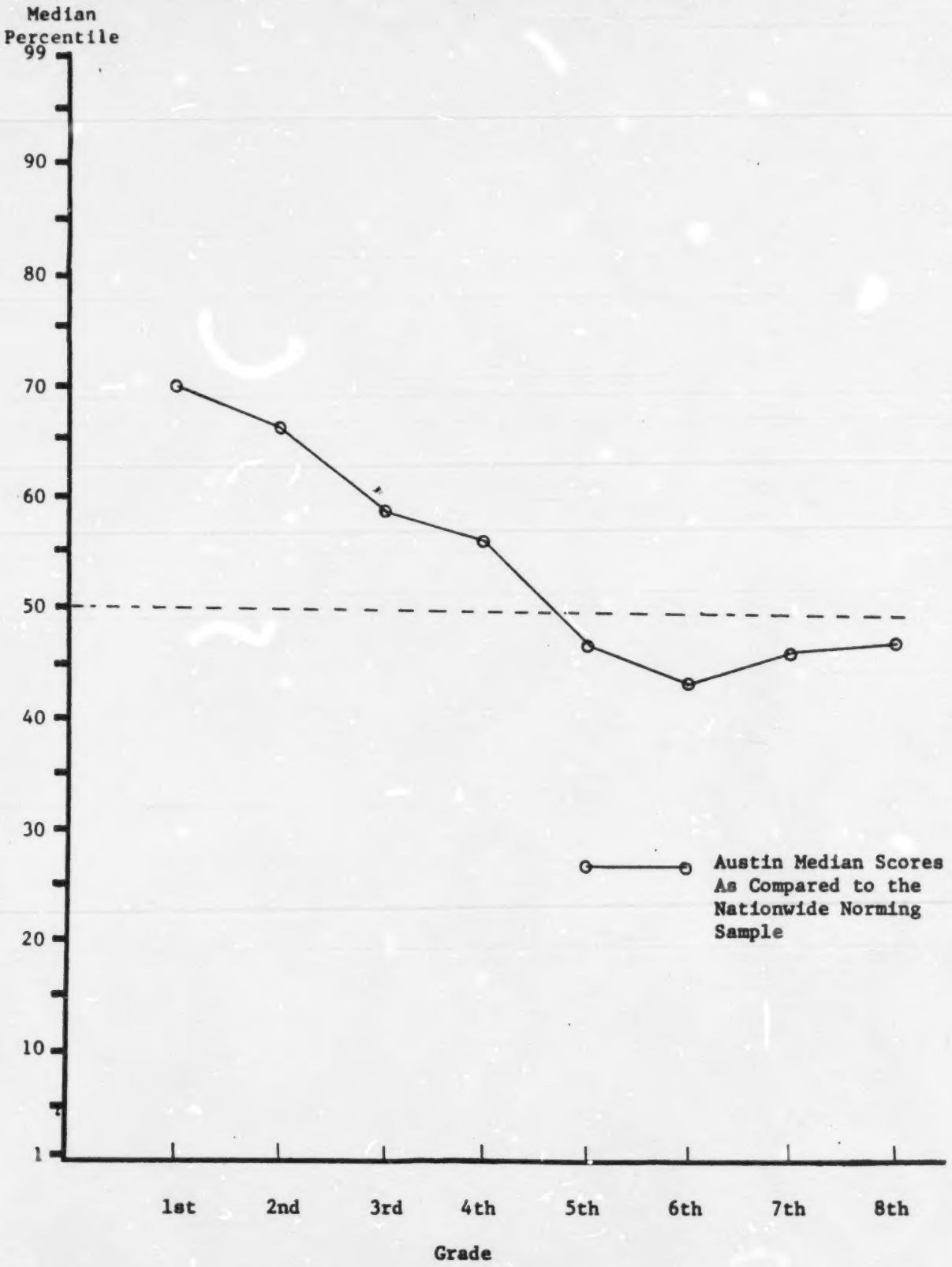


Figure IV-80: COMPARISON OF DISTRICTWIDE CAT MATH ACHIEVEMENT TO THE NATIONAL NORMS

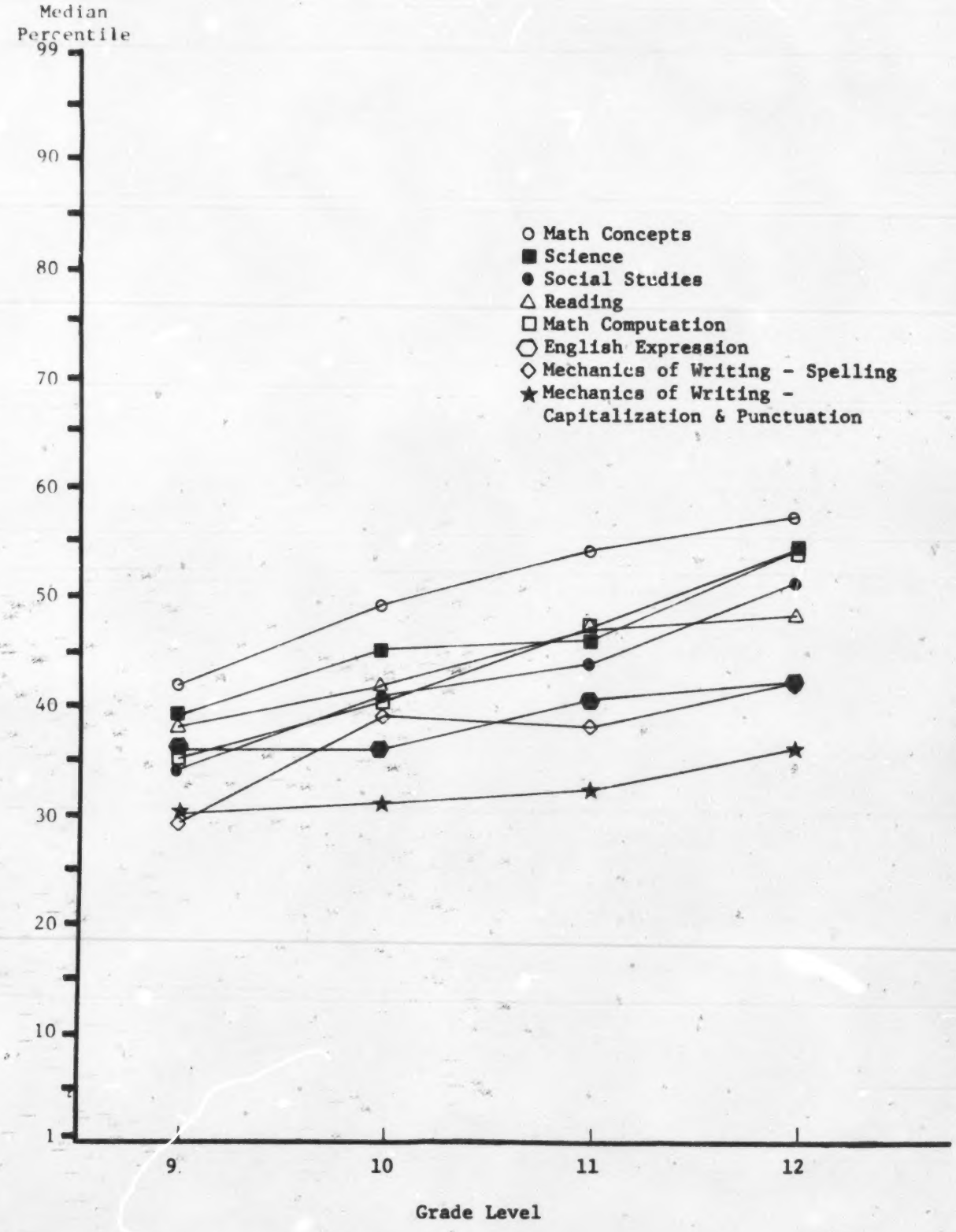


Figure IV-81: DISTRICTWIDE STEP MEDIAN PERCENTILE SCORES FOR 1976-77

2-4. How does Austin achievement in the general curriculum areas compare with urban district achievement in these areas?

ANSWER: Austin achievement is much higher than the urban district norms, for all grades and in all CAT tests. This is in contrast to Austin achievement in comparison to the national norms, for which achievement only in Grades 1-3 and, for the most part, Grade 4, was above the norm.

SUPPORTIVE DATA: Figures IV-82 and IV-83 display the districtwide 1976-77 median percentiles scores for CAT Reading Total and for CAT Math Total, based on the urban district norms. For comparison purposes, Austin's achievement, as based on the national norms, is also provided.

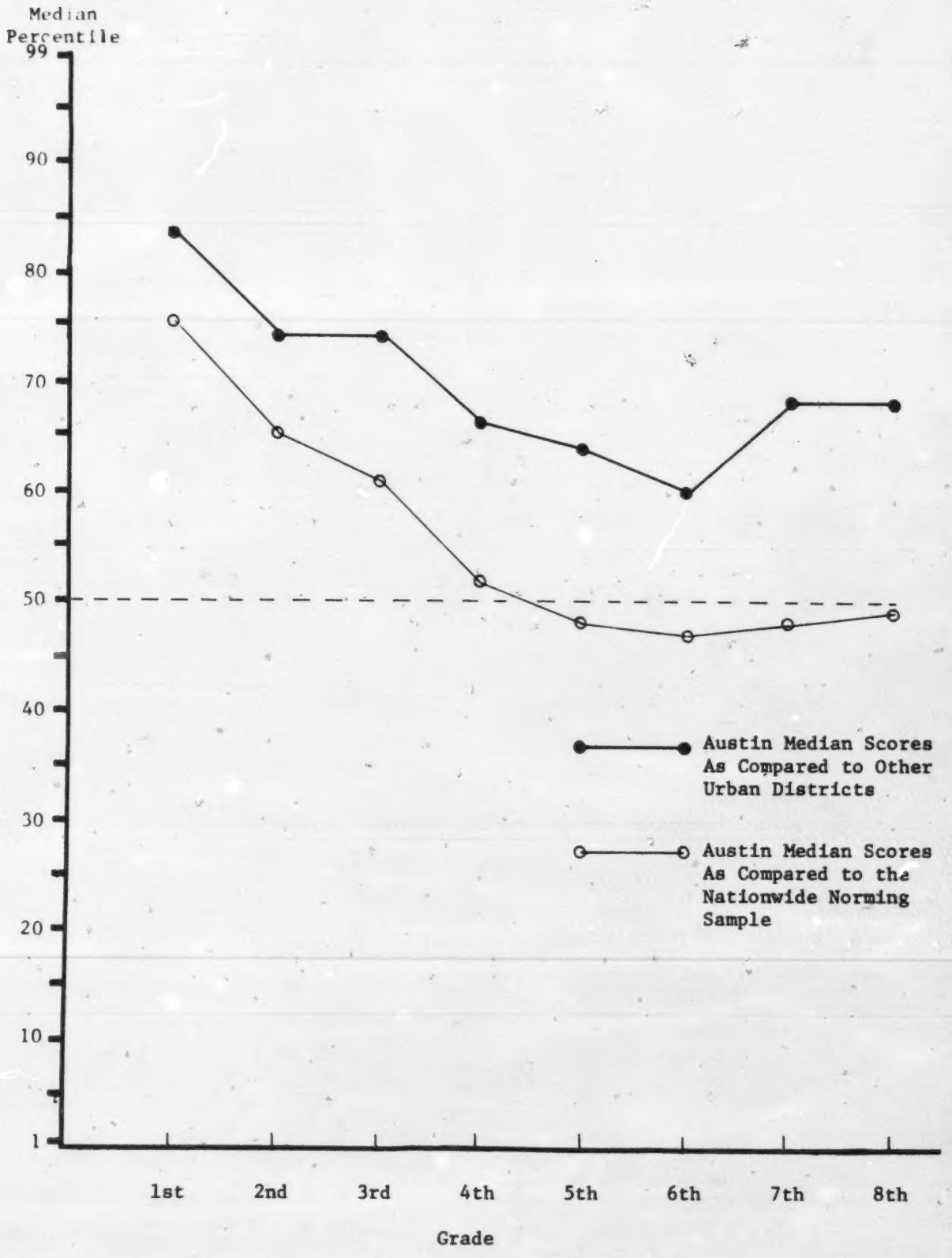


Figure IV-82: CAT READING TOTAL MEDIAN PERCENTILE SCORES, 1976-77

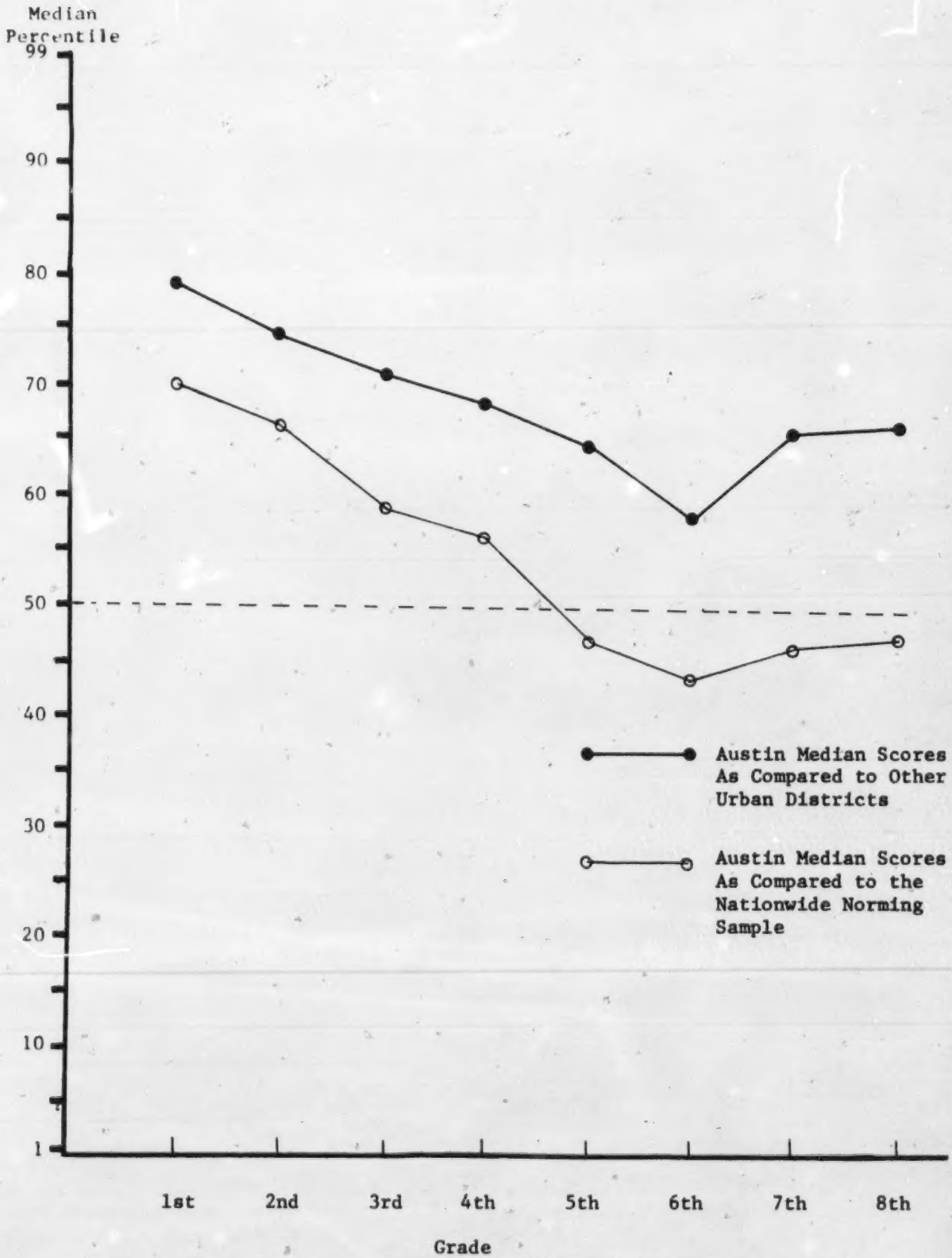


Figure IV-83: CAT MATH TOTAL MEDIAN PERCENTILE SCORES, 1976-77

3-1. Which battery(s) would provide the most reliable and valid data for use in answering evaluation questions 1-1, 1-2, 1-3, 2-1, 2-2, 2-3, and 2-4?

ANSWER: No efforts to provide information relevant to this decision question were attempted this year. Early in this year, considerable work by the Texas Education Agency and by a subcommittee of the Texas Legislators was done concerning the development of a statewide accountability procedure which included, among other features, a state-mandated achievement testing program for all students in grades 1 - 12.

Until such issues have been completely resolved, it is inopportune to consider a revised testing program in the district. This is especially true since a considerable amount of staff time and funds would have been involved in conducting this study.

After these critical external constraints have been identified and their impact on the district is known, this district question may be reconsidered.

3-2. Which battery(s) would provide the most reliable and valid data for use in making instructional decisions about individual students?

ANSWER: Same as above.

3-3. What state legislation has been passed regarding accountability requirements and what are the implications of this legislation for achievement testing in the district?

ANSWER: Same as above.

4-1. How does the kindergarten students' understanding of basic concepts during this year compare with the understanding of basic concepts for last year's kindergarten students?

ANSWER: The understanding of basic concepts pertaining to space has improved since last year. However, understanding of concepts pertaining to the other basic categories of quantity, time and miscellaneous has not changed. Also overall understanding for all types of concepts together has not changed.

SUPPORTIVE DATA:

Figure IV-84 displays the Boehm Test of Basic Concepts median scores for the different categores of concepts and for the combined set of all concepts for the 1975-76 year and for the 1976-77 year. The median raw scores for the two years are identical except for the Space subtest. The space median score for 1976-77 is one point higher than for the previous year.

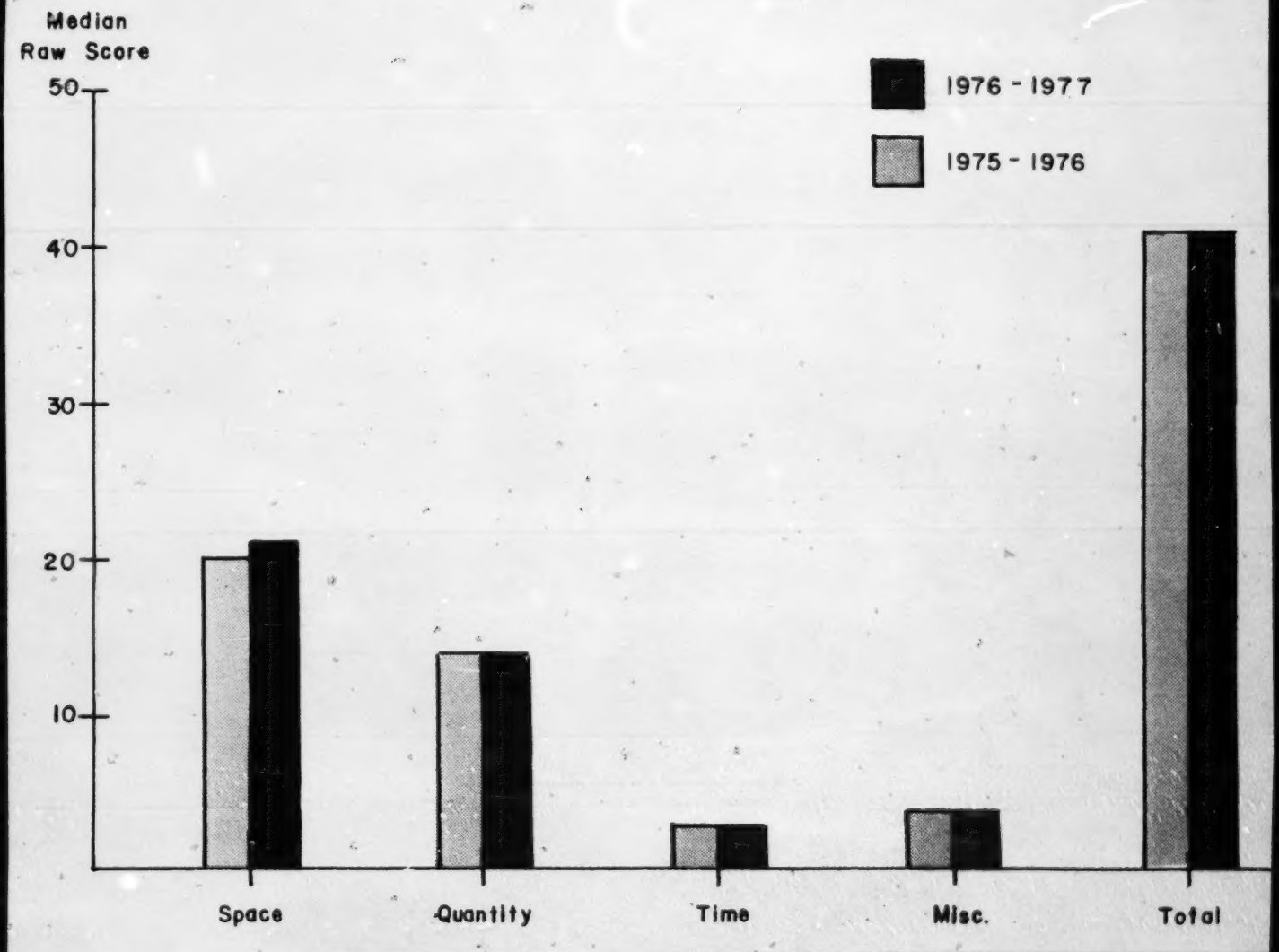


Figure IV-84: SUBSCALE MEDIAN SCORES, BOEHM TEST OF BASIC CONCEPTS

4-2. How does the kindergarten students' understanding of basic concepts during this year compare with the understanding of basic concepts of a nationwide sample of students?

ANSWER: It is not possible to answer this question in a straightforward manner because the Boehm test was not standardized on a random "nationwide sample." Rather, comparisons must be made to students in a small sample of Low SES (socioeconomic status), Middle SES, and High SES students in five cities (Fresno, California; Atlanta, Georgia; Highland Park, New Jersey; New Rochelle, New York; and Tulsa, Oklahoma) upon whom the standardization was based. Moreover, percentile scores are not provided for the Boehm and scores are reported only by group for the Low, Medium, and High SES samples.

For these reasons, a somewhat elaborate procedure for deriving and comparing the average percent of items correct for the Austin sample and the standardization sample was utilized. (This procedure is explained in considerable detail in the Technical Report supplementary to this one and available in the Office of Research and Evaluation files.)

SUPPORTIVE DATA:

The average percent correct data for each subscale and for the total test are displayed in Figure IV-85 for the 1976-77 AISD administration and for the norming sample. An inspection of this figure reveals that Austin kindergarten students' understanding of the concepts assessed by the Boehm Test of Basic Concepts is higher than the understanding by students in the norming sample for each subscale and for the total test.

Subscale (or Total)	AVERAGE PERCENT CORRECT		DIFFERENCE[1]
	AISD	Norming Sample	
Space	84%	76%	+8%
Quantity	73%	64%	+9%
Time	78%	70%	+8%
Miscellaneous	78%	64%	+14%
Total	79%	70%	+9%

[1]The difference is computed as AISD Average Percent Correct - the Norming Sample Average Percent Correct.

Figure IV-85: AVERAGE PERCENT CORRECT FOR BOEHM SUBSCALES AND TEST TOTAL FOR DISTRICTWIDE 1976-77 TESTING AND FOR THE NATIONAL NORMING SAMPLE.

5-1. How does the understanding of basic concepts by Kindergarten students using the Lippincott system compare with the understanding of basic concepts by Kindergarten students using the MacMillan System?

ANSWER: When the performance of students in schools having either a high percentage of low-income student enrollment (low SES) or a low percentage of low-income student enrollment (Middle SES) were compared upon the basis of using either the Lippincott or Macmillan Oral Language system, there were no significant differences in their scores on the Boehm Test of Basic Concepts. That is, neither oral language system seemed to yield better results than the other.

These findings should, however, be compared to related findings using the Metropolitan Readiness Tests, where differences were found. See Question 5-2 following.

SUPPORTIVE DATA:

Figure IV-86 provides the results of the comparisons that were made. Both of the two comparisons that were made between Lippincott classes and MacMillan classes indicated that there were no significant differences between the two types of oral language systems.

SES Level	Oral Language System	N	Mean Raw Score	Standard Deviation	t
Low	Lippincott	95	35.17	9.79	+1.07
	Macmillan	104	33.85	8.19	
Middle	Lippincott	90	39.82	5.81	-0.90
	Macmillan	109	40.61	6.50	

Figure IV-86: COMPARISON OF LIPPINCOTT USERS AND MACMILLAN USERS FOR THE BOEHM TEST OF BASIC CONCEPTS. (DIFFERENCES WERE NOT SIGNIFICANT.)

5-2. How does the beginning-of-first-grade-readiness of students using the Lippincott system during their kindergarten year compare with the beginning-first-grade-readiness of students using the MacMillan system?

ANSWER: When the performance of students who had been members of certain selected kindergarten classes during the 1975-76 school year (schools classified as either high or low socioeconomic status (SES) depending upon their percent of low-income enrollment and utilizing either the MacMillan or Lippincott oral language systems) were compared as to their scores on the Metropolitan Readiness Test the following year, students utilizing the Lippincott oral language system scored higher than those using the MacMillan system for both the low SES school students and the middle SES school students. For the middle SES school students, the difference was a statistically significant one.

SUPPORTIVE DATA:

Figure IV-87 below provides mean raw scores and results of the statistical analysis performed.

SES Level	Oral Language System	N	Mean Raw Score	Standard Deviation	t
Low	Lippincott	95	35.37	14.92	1.69
	Macmillan	104	32.05	12.72	
Middle	Lippincott	90	54.10	12.82	2.62*
	Macmillan	109	49.43	12.22	
* Significant difference at the .05 level.					

Figure IV-87: COMPARISON OF LIPPINCOTT USERS AND MACMILLAN USERS FOR THE METROPOLITAN READINESS TESTS.

6-1. Which readiness test would provide the most reliable and valid data for use in answering evaluation questions 4-1 and 4-2?

ANSWER: The investigations revealed that neither of the three tests selected for final consideration is adequate for all purposes.

SUPPORTIVE DATA:

A preliminary survey of available readiness tests identified three tests for final consideration with respect to this question: The Boehm Test of Basic Concepts; The Test of Basic Experiences (TOBE) and the Metropolitan Readiness Test (MRT, kindergarten level). These tests were studied carefully with respect to the kinds of questions about the kindergarten program that are reflected in Evaluation Questions 4-1 and 4-2.

The MRT is clearly the only viable alternative for providing the information requiring the use of national norms. The TOBE is the most costly of the tests (roughly twice the others). The instructional coordinators favored this test, however, as the best measure of the kindergarten curriculum.

Figures IV-88 through IV-90 provide summaries of pertinent technical characteristics of the three tests. Figure IV-91 provides a comparison of other technical characteristics of the three tests.

Test	Reliabilty Coefficient			
	KR - 20		Test-Retest	
	r	N	r	N
Math	.82	2640	.82	87
Language	.82	2615	.72	90

(This figure is adapted from Tables 5 and 10 from the Examiners Manual, published by CTB/McGraw-Hill, Monterrey, Calif.)

Figure IV-88: RELIABILITY COEFFICIENTS FOR TESTS OF BASIC EXPERIENCES (TOBE) LEVEL K

SES Level	Split-Half		Alternate Form	
	r	N	r	N
Low	.86	162	.58	76
Middle	.90	453	.55	134
High	.85	250	.78	81
Combined	--	--	.72	291

(This figure is adapted from Tables 11 and 12 from the Boehm Test of Basic Concepts, published by the Psychological Corp., New York, N.Y.)

Figure IV-89: RELIABILITY COEFFICIENTS FOR THE BOEHM TEST OF BASIC CONCEPTS FORM A

Test	Reliability Coefficient		
	Split-Half (N = 348)	KR-20 (N = 348)	Alternate Form (N = 739)
Auditory Memory	.73	.74	.58
Rhyming	.80	.77	.67
Letter Recognition	.88	.88	.81
Visual Matching	.79	.79	.69
Visual[1]	.85	.88	.82
School Language and Listening	.66	.66	.64
Quantitative Language	.75	.67	.68
Language[2]	.83	.80	.75
Total[3]	.93	.92	.85

(This figure is adapted from Tables 17 and 18 of the MRT Teacher's Manual, Part 2, published by Harcourt Brace Jovanovich, Inc., New York, N.Y.)

The Visual Test consists of the Letter Recognition and Visual Matching Scales.

The Language Test consists of the School Language and Listening Scale and the Quantitative Language Scale.

The Total consists of each of the 6 basic scales.

Figure IV-90: RELIABILITY COEFFICIENTS FOR METROPOLITAN READINESS TEST (MRT) LEVEL I, FORM P

Technical Characteristic	Metropolitan Readiness Tests (MRT)	Boehm Tests of Basic Concepts	Tests of Basic Experiences (TOBE)
Probability Sampling Procedure	Stratified random sampling of school districts in the nation	NONE	NONE
Number of Participants	Fall: approx. 9,000 students Spring: approx. 6,000 students	Fall: 3,500 students Midyear: 865 students	Fall: 2,600 students Midyear/Spring: none
Norming Population Descriptions Provided	% of students by sex, ethnicity, and geographical region	No description provided.	% of students by community type (inner city, urban, suburban, and small city) and by geographical region.
Derived Scores available	Percentile, Stanine, and scale scores are available for individual student results and for group summaries.	Percentile scores are available for individual student results, if SES level of student is known; even these are not adequate.	Percentile, stanine, and scale scores are available for individual student results and for group summaries.
Period of Norming	November (Fall norming) April (Spring norming)	September & October (Fall norming) November through February (midyear norming)	October through January (Fall norming)
Derivation of interpolated derived scores for September and February	September - interpolations cannot be done February - interpolations can be done	September - publisher-provided scores can be used February - regular scores can be used but are not adequate; no interpolations can be done	September - interpolations are not possible February - interpolations are not possible
Year of Norming	1974-75	1969-70	1969-70

Figure IV-91: COMPARISON OF TECHNICAL CHARACTERISTS OF THREE KINDERGARTEN TESTS

6-2. Which kindergarten readiness test would provide the most reliable and valid data for use in making instructional decisions about individual students?

ANSWER: The investigations revealed that neither of the three tests selected for final consideration is adequate for all purposes.

SUPPORTIVE DATA:

The above answer cannot be considered independently of question 6-1 (see previous evaluation questions) since the adequacy of a test for making instructional decisions about individual students is dependent upon the extent to which it is reliable and valid. Thus, a conclusion above that none of the available tests are entirely adequate means that none are adequate for this purpose either. However, it is also worth noting that teachers' interview responses on questions relating to the adequacy of the tests they pilot-tested were also mixed and do not indicate clear teacher preference for any one test.

Other information of note is that neither the MRT nor the TOBE have Spanish versions as does the Boehm; that instructional coordinators did their own study of the content of each of the three tests and did not consider the MRT to have adequate content validity for the AISD kindergarten curriculum and preferred the TOBE over the Boehm; and finally, that all three tests may have a ceiling effect when used in the last half of the year with kindergarten students. (That is, many students in higher SES schools may achieve maximum scores which will mean no diagnostic information on that student is yielded to the teacher.)

QUESTION	TEACHERS ADMINISTERING THE MRT		TEACHERS ADMINISTERING THE TOBE	
	LOW SES School Teacher	MIDDLE SES School Teacher	LOW SES School Teacher	MIDDLE SES School Teacher
1. Would this new test provide useful Fall testing data?	"Very definitely."	(1)	"Very definitely."	(1)
2. Would this new test provide useful Spring testing data?	"Yes; covers areas taught in my program."	"Fairly good. Identifies students with problems; supports other data already available."	"Very definitely."	"Yes."
3. Would this new test be better than the Boehm for Fall testing?	"No question; MRT is much better."	(1)	"Extremely better."	(1)
4. Would this new test be better than the Boehm for Spring testing?	"Much better; Boehm test does not test skills."	"Better; MRT provides better scatter of scores - Boehm gives high scores for all kids in the Spring."	"Anything is better than the Boehm; TOBE tests what has been taught."	"Boehm may be better for Language; in general, Boehm is better except for physical characteristics of test booklet."
5. Do the students understand the test directions?	"Yes; the directions are sometimes lengthy."	"Yes - children understood them surprisingly well."	"Directions OK."	"Directions are adequate, but meaningless words - smat and boes confused the children."
6. Is the MRT Practice Test of benefit?	"Very much."	"Not necessary."	----------	----------
7. Can students handle the booklet easily?	"Very easily, though might be difficult for Fall semester use."	"Children caught on very quickly, though may be difficult for Fall semester."	"Very easily."	"Yes."
8. If only one of the TOBE tests (probably Language) were given would you still like this test better than the Boehm?	----------	----------	"Two are excellent. If only one had to be chosen, Math would be better. Language is easy to assess without a test."	"No. One of the two tests simply would not cover enough material."
9. Any other comments?	"Very enthusiastic about MRT; visual discrimination and auditory and memory sections are especially good; test is very long."	"Test is long; maybe too many items per page; very good in testing 'left-to right' and auditory memory; 'Rhyming tests' confused students."	"The items with nonsense words - (smat, boes) upset the students; they enjoyed taking it."	"Language items have more difficult terms; math terms more specific; students loved the test."

(1) Questions 1 and 3 were not asked of Middle SES teachers. Only Low SES, or Title I, schoolteachers have been using a Fall administration of the kindergarten readiness test.

Figure IV-92: INTERVIEW RESPONSES BY TEACHERS PILOT-TESTING THE METROPOLITAN READINESS TEST (MRT) AND THE TEST OF BASIC EXPERIENCES (TOBE).

7-1. What are perceived as the highest priority essentials in meeting the instructional needs of AISD students?

ANSWER: Tentative priorites have been designated as:

1. Continued concentration on basic skills. (A definition of "basic skills" has been prepared by the district.)

2. Attention to achievement in the low socioeconomic status (SES) and minority student groups.

3. Emphasis on evaluation of staff. This priority did not include continued efforts to develop any written competency tests.

SUPPORTIVE DATA:

Interviews were held with district administrative staff in the spring of 1977 for the purpose of providing input for the establishment of priorities. Based upon this input, the Superintendent made recommendations to the Board of Trustees regarding potential priorities. Extensive background data was gathered by ORE and presented to the Board on all areas selected for consideration. The Board of Trustees at a meeting on April 27, 1977, approved by consensus the tentative priorities listed above. Areas listed below were also designated as potential areas of continued emphasis:

.Development of a comprehensive accreditation and accountability plan.
.Quarter system and curriculum revision.
.Closer coordination of elementary and secondary curriculum.
.Programs for the gifted and talented.
.Methods of improving attendance.
.Special education needs.
.Coordination of special projects and regular curriculum in the School District.

A meeting has been scheduled for August 1, 1977, at which final consideration and approval of priorities for 1977-78 will be given.

B. INTERRELATIONSHIPS

The information that has been provided for answering Evaluation Questions 1-1, 1-2, and 1-3 all involve applying different criteria for the identification of achievement skills areas that are weak in some sense. These criteria are (1) whether achievement in the skills area has dropped since last year, (2) whether achievement in the skills area is the lowest of the skills areas for a given grade, and (3) whether achievement in the skills areas is below the national norms achievement.

If all of these criteria are applied simultaneously, and those skills areas that are identified as "weak" according to at least two of the criteria noted, then this subset of skills areas may be considered as especially worthy of consideration for additional emphasis.

Such a joint application of all three criteria has been applied to identify these skills. The skills areas are listed in Figure IV-93.

An inspection of this figure reveals a high concentration of weakness in the general area of Math Problems for Grades 5-8. The particular skills that are listed are those involving the so-called "word problems" such as interpreting graphs, computing areas, and determining discount rates.

This fact may be further related to other information that was provided in Evaluation Question 2-2. In the discussion concerning this evaluation question, it was noted that achievement in math computation is higher than achievement in math concepts and problems (including such "word problem" skills). It thus appears likely that the lesser achievement in math concepts and problems in the early elementary grades may possibly be a causal factor in the poorer achievement in later grades for these word problems.

Skills Areas	Grades
Reading Vocabulary:	
Sentence Picture Association	1
Reading Comprehension:	
Reference Skills	8
Generalization	5
Relations	7
Inference	7
Math Computation:	
Addition	2
Addition of Integers and Fractions	6,7
Subtraction of Integers and Fractions	6
Math Problems:	
Subtraction	5,6,7,8
Multiplication	5,7
Division	6,7,8

Figure IV-93: LISTING OF CAT SKILLS FOR WHICH ACHIEVEMENT HAS DECLINED SINCE LAST YEAR AND (1) ACHIEVEMENT IS BELOW NATIONAL NORMS, OR (2) ACHIEVEMENT IS LOWEST IN AISD